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SURE
of Satisfaction

Be **SURE** to Specify
READING COPPER TUBING
FOR REFRIGERATION & AIR CONDITIONING EQUIPMENT

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TUBE CORPORATION
EMPIRE STATE BUILDING
NEW YORK 1, N.Y.
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YOU'LL SELL MORE PROFITABLE JOBS

with the complete line of

Curtis

AIR CONDITIONING AND
REFRIGERATION EQUIPMENT

Every product in the Curtis line is built with quality material and workmanship.

Curtis equipment is known around the world for its dependability and efficiency.

With the complete Curtis line, you can handle any installation for Home, Office, Store, or Factory.



Condensing units—through 80 tons



Evaporative Condensers,
Cooling Towers and Air
Handling units to match



Residential cooling
and heating units

Packaged Units—
2, 3, 5, 7½ and 10 tons
Choice of open or semi-
hermetic compressors...
and 15 ton packaged
Central type units



You may qualify for a direct factory franchise. For immediate information on how to take advantage of this profit-making opportunity, write us, using your company letterhead.



National advertising in Saturday Evening Post, Time, Newsweek and House and Home, plus many other publications helps sell Curtis to your customers and prospects. Attractive new sales literature is available to help you sell in your local area.

N. Y. Rackets--

(Concluded from Page 1, Col. 4) counsel to Gov. Harriman, presided at the conference. She said one of the important matters now pending in the legislature to deal with "gyp rackets" in appliance and TV servicing is licensing of repairmen.

"We also should consider," she stated, "whether we need a state body comparable to the Federal Trade Commission which could act directly in cases of false and misleading advertising."

"We should concentrate on obtaining vigorous enforcement of the existing laws against fraud, and on a combined effort of public and private agencies in the field of consumer education."

Broadcasters would welcome a state trade commission, said Michael R. Hanna, president of the New York State Association of Radio & Television Broadcasters. In telling of efforts to eliminate "bait-switch advertising" from radio and TV, he said such a commission could "serve an admirable purpose."

Another of the several speakers at the day-long conference was District Attorney Edward S. Silver of Kings County. He outlined results achieved by his office in combatting fraudulent practices and, by means of a tape recording, presented actual examples of bait advertising used to promote a sewing machine and also a sales pitch for aluminum storm windows.

Weather Trends--

(Concluded from Page 1, Col. 3) 1955, a repetition of these extreme temperatures is not probable.

The Southwest quarter of the country will be especially favorable for air conditioner sales in July 1955.

Last July produced an inconsistent temperature pattern. Average temperatures were generally warmer than normal for most of the country, yet few extremely hot days were reported. Only a relatively small area in sales potential, including Kansas, Oklahoma, and Arkansas, had ideal air conditioner weather.

The South Central States will be even hotter than usual during August 1955. Further east, in key market areas, temperatures will average near normal but wetter conditions will add to the humidity helping to produce many more uncomfortable days than during last year.

Rishel Resigns Deepfreeze Post, To Announce Plans Later

N. CHICAGO, Ill.—J. A. Rishel, Jr., general sales manager of Deepfreeze Appliance Div., Motor Products Corp., announced his resignation here recently. Previously, he had been appliance sales manager of Mullins Mfg. Corp.

Rishel will announce his future plans shortly.

Riggers Win--

(Concluded from Page 1, Col. 4) stoppages.

Two of the stoppages involved air conditioning installations by York Corp.

The NLRB determined a year ago, without assigning the work in question to the riggers, that the pipefitters were not lawfully entitled to force or require any employer in the Philadelphia area to assign the disputed rigging work to members of the pipefitters rather than to members of the riggers.

The pipefitters claim that the handling, moving, and setting of all equipment on which pipefitters work lies within its work jurisdictional sphere, not to be encroached on by any other craft or class of employees.

However, traditionally in Philadelphia, preliminary handling, hoisting, and setting of such equipment has been assigned to rigging contractors who specialize in such work and who employ members of the riggers' union.

The assignment of such work to rigging contractors was considered necessary, the trial examiner's report stated, because the piping contractors did not possess adequate rigging equipment required for the lifting and setting of extra heavy loads and because in some instances, general contractors or suppliers of certain equipment, such as air conditioning units, believed that riggers were better qualified to handle such work.

However, in 1952, the UA demanded and obtained from Philadelphia contractors a provision in their contract that gave all piping and equipment work jurisdiction to the UA and, where work must be sublet to a rigging contractor, UA members would do the work under the supervision of one rigger.

This did not work out in practice, however, as the contractors were not able to get the necessary rigging equipment to be manned by pipefitters. As a result, the UA claimed that its actions were merely intended to insist that the contractors live up to their agreement.

National Radiator Stockholders O.K. U. S. Radiator Merger

BALTIMORE—Merger of National Radiator Co. with United States Radiator Co. has been approved by National's stockholders.

Stockholders of U. S. Radiator had approved the merger March 3.

When the merger becomes effective, National will be the surviving corporation. Its name will be changed to National-U. S. Radiator Corp. National's president, T. B. Focke, will retain the postioning equipment.

In a statement filed earlier with the Securities and Exchange Commission, National said one of the main reasons for the merger is to permit the surviving corporation to expand production of air condi-

Test Case

Indict Serviceman for Installing Valves Without License or Permit

BALTIMORE—The Baltimore grand jury last week indicted Sylvester (Max) Kreisel in a case brought by refrigeration men to test laws requiring licensed plumbers and electricians for refrigeration repair and installation work in commercial places.

Earlier, at a refrigeration trade meeting, Kreisel volunteered to serve as "guinea pig" in the test case.

Charged with making electrical and plumbing connections without the service of the required licensed workers, he was released in his own recognition after a hearing in Eastern Police Court.

The grand jury indicted Kreisel on two counts—for installing an electric solenoid valve without holding a master electrician's license and without obtaining a permit, and for installing a low pressure water regulating valve without holding a master plumber's license and without obtaining a permit.

Both installations were to existing equipment and both were replacements of defective devices said to be of the type which any serviceman might replace on a service call.

Bail was set at \$1,000—\$500 for each violation.

The Refrigeration Trade Association of Baltimore said that if Kreisel is found guilty, it will press for passage of a bill already introduced in the Maryland Legislature.

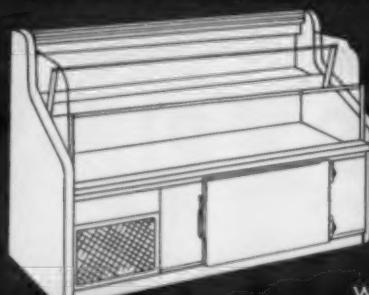
This bill seeks special license treatment for refrigeration contractors and mechanics. It would permit licensing of refrigeration men to make normal connections to water lines and electric lines, on approval by license officials of the city.



Redmond
MICROMOTORS
One of largest stocks
in the world!
FACTORY DISTRIBUTORS
MARVIN L. "FERGIE" FERGESTAD
CYCLO-FREEZ CORP.
6318 Cambridge, Mpls. 16, Minn.
West 9-6794

SIX FEET OF SALES POWER

Self-Contained Case
for Dairy Products,
Meats, Vegetables



WRITE FOR COMPLETE DETAILS.
85th Anniversary
THE C. SCHMIDT COMPANY
1712 JOHN STREET CINCINNATI 14, OHIO

Here's a case that has a big market in crowded stores. Just 6' long... 18 square feet of refrigerated shelves... 13 cubic feet of storage... all in 18 square feet of floor space! Goes through the standard door; plug-in installation; reliable refrigeration. You can sell one of these a week!



630-R
**CURTIS REFRIGERATING
MACHINE DIVISION**
OF CURTIS MANUFACTURING CO.

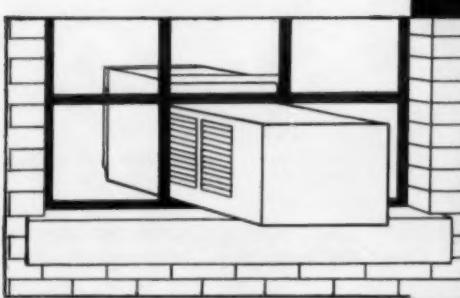
1912 KIENLEN AVENUE
ST. LOUIS 20, MISSOURI

New 1955 Frigidaire Room Conditioners Fit Every Kind of Summer Weather...Every Kind of Window

New, redesigned! Twin-Powered for local weather!



Slips through single pane section—no need to remove window muntins or mullions!



Unique "step-down" design of new $\frac{1}{4}$ and $\frac{1}{2}$ hp Super models gives Frigidaire Dealers the sales appeal of a casement window model that installs by simply removing a single pane of glass. And these same units also adapt perfectly to double-hung windows, giving dealers one compact line that does two jobs equally well. Optional thermostats can be installed in minutes.

New, simplified installation ends serviceman's problems. All 1955 Frigidaire Room Conditioners slide easily in or out of an outer shell for simplified installation and servicing in the room. The outer shell itself, is quickly installed from inside the room. Then the unit slides into the shell and the front panel snaps on.

The new Frigidaire design permits many different installations . . . ranging from flush to regular balanced mounting position.

See your Frigidaire Division Manager for details on special inventory and sales plans, as well as new displays and merchandising aids.

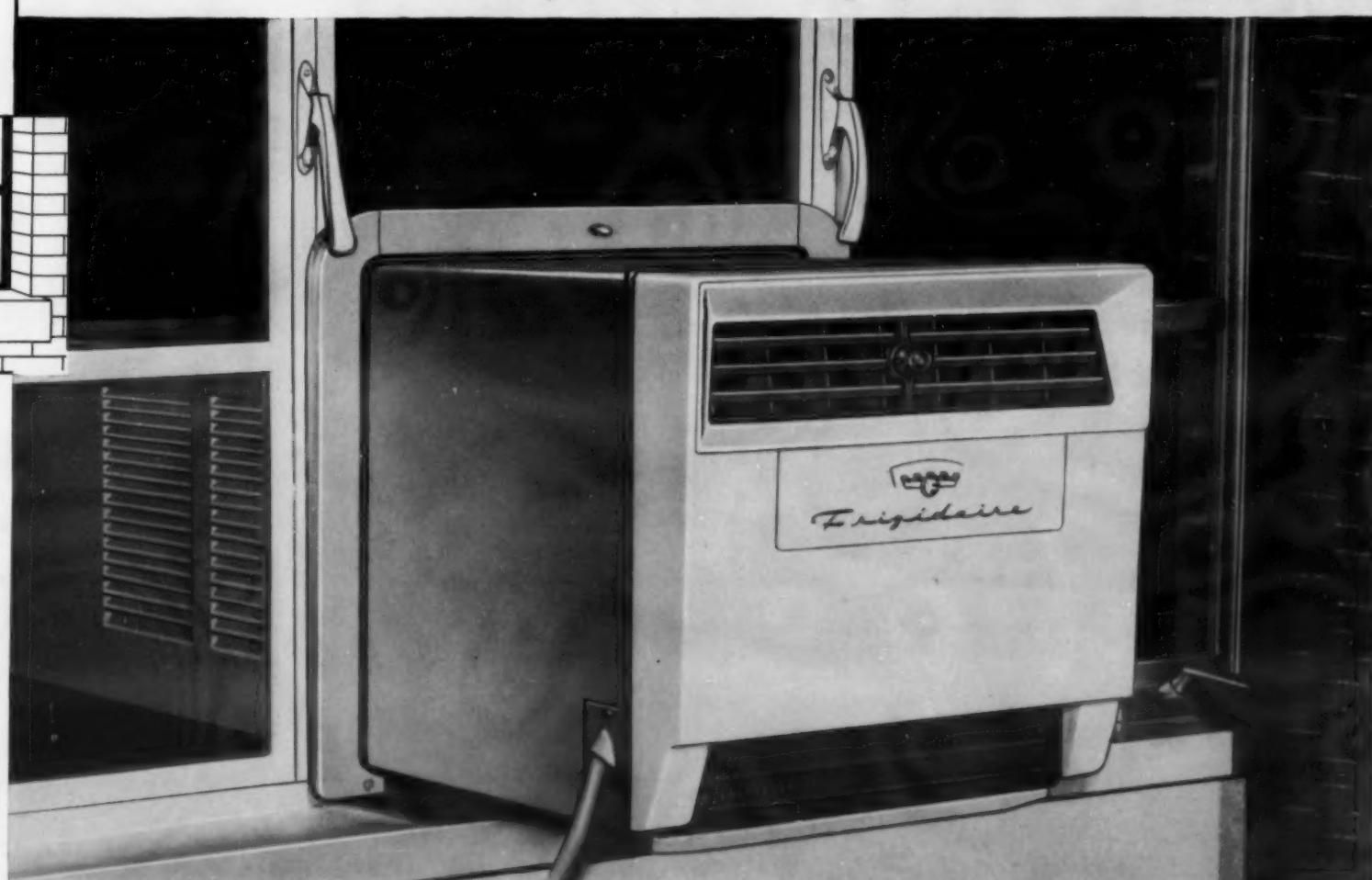
New Deluxe Twin with exclusive comfort story unmatched for local selling!

Here's new design, new beauty—plus twin cooling systems that adapt the one right way to every single temperature change. It's like two room conditioners in one. One Meter-Miser Compressor provides adequate cooling, dehumidifying and filtering in moderately hot, humid weather. But when temperatures soar, both Meter-Misers team up to double cooling power. That means sales-winning economy, too, since when one Meter-Miser operates owners save up to half the electric bill. Complete line includes 1 hp Twin Models for 115-volt operation.



New "Magic Guide" personalizes control of Great Circle Cooling! "Magic Guide" knobs adjust up-and-around air flow to any shape room, assures even, cool comfort regardless of window location. Simple new sliding controls regulate fresh air intake and stale air exhaust.

At last, an attractive Room Conditioner that installs easily without tearing up casement windows!



Frigidaire Conditions

BUILT AND BACKED BY GENERAL MOTORS

Floating Air

**Friedrich Refrigerators, Inc., 1117 Commerce St.
San Antonio, Texas**

Model No.	5W751S	5W752S	5W1002S	5W1502S
CAPACITY (Btu/hr.)	8250	9250	12550	18050
DIMENSIONS (In.)				
Height	17%	17%	17%	17%
Width	27%	27%	27%	27%
Depth	33%	33%	33%	37%
CABINET				
Material		Plastic		
Projection (in.)	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{4}$	4 $\frac{1}{4}$
Window closing adapter		No		
Controls		Open		
Type		Knob		
Thermostat		Standard		
HEATING PROVISION				
AIR CAPACITIES				
Circulation (c.f.m.)	350	350	350	490
Fresh	225	225	225	275
ELECTRICAL				
Voltages	115		230/208	
Total average watts	1255	1120	1480	2120
Total amperes	15	7.5	8-7.5	9.7
Unit power factor	.85	.90	.90	.90
COMPRESSOR				
Hp.	$\frac{3}{4}$	$\frac{3}{4}$	1	1 $\frac{1}{2}$
Cylinders	2	2	2	2
R.p.m.	1725	1725	1725	1725
Make	Tec.	-Copeland-		Tecumseh
REFRIGERANT				
Type	— "F-12" —		— "F-22" —	
Charge (oz.)	21	21	42	32
FAN MOTOR				
Number	1	1	1	1
R.p.m.	1140	1140	900 &	1350 &
Hp.	1/8	1/8	1/12	1/8
COIL				
Condenser (rows)	2	2	3	2
Evaporator (rows)	2	2	3	2
AIR FILTER				
Type		Fiberglas, replaceable		
Dimensions ($\frac{1}{2}$ in.)		9 $\frac{1}{2}$ x20 $\frac{1}{2}$		10 $\frac{1}{4}$ x20 $\frac{1}{2}$
NET WEIGHT (lbs.)				
	197	197	200	225
SPECIAL FEATURES				
Molded Fiberglas blower housing and evaporator coil give				

Bryant

**Bryant Div., Carrier Corp., 17825 St. Clair Ave.,
Cleveland 10, Ohio**

Model No.	50-554	75-554	100-554
CAPACITY (Btu/hr)	6300	9380	12300
DIMENSIONS (In.)			
Height	16	16	16
Width	26½	26½	26½
Depth	29½	29½	29½
CABINET			
Material		Plastic and steel	
Projection (in.)	10	10	10
Window closing adapter		No	
Controls		Concealed	
Type		Knobs	
Thermostat		Optional	
HEATING PROVISION			No
AIR CAPACITIES			
Circulation (c.f.m.)	250	300	375
Fresh	65	75	90
Exhaust	65	75	90
ELECTRICAL			
Voltages	115	115-230	230

Room Air Conditioner Models

Mitchell

Mitchell Mfg. Co., 2525 Clybourn Ave., Chicago 14, Ill.

Model No.	M-235	M-225	M-245	M-2005	M-1005	M-1245	M-3005
CAPACITY (Btu/hr)	4,600	6,300	9,000	12,000	16,000		
DIMENSIONS (In.)							
Height	15 $\frac{1}{4}$	15 $\frac{1}{4}$	16 $\frac{1}{4}$	16 $\frac{1}{4}$	16 $\frac{1}{4}$	16 $\frac{1}{4}$	16 $\frac{1}{4}$
Width	25 $\frac{3}{4}$	25 $\frac{3}{4}$	26 $\frac{1}{4}$	26 $\frac{1}{4}$	26 $\frac{1}{4}$	26 $\frac{1}{4}$	26 $\frac{1}{4}$
Depth	25 $\frac{1}{2}$	25 $\frac{1}{2}$	28 $\frac{1}{2}$	28 $\frac{1}{2}$	28 $\frac{1}{2}$	28 $\frac{1}{2}$	28 $\frac{1}{2}$
CABINET							
Material				Plastic			
Projection (in.)				3 $\frac{1}{2}$			
Window closing adapter				No			
Controls	Open	Open	Open	*Concealed	Open	Concealed	
Type				Knob			
Thermostat	Opt.	Opt.	Opt.			Std.	
HEATING PROVISION	No	No	No	No	No	Yes	
			*Yes	*Yes			
AIR CAPACITIES							
Circulation (c.f.m.)	208	208	325	250	400		
Fresh	85	85	100	110	125		
Exhaust	150	150	175	185	200		
ELECTRICAL							
Voltages	115	115	115	230	230		
Total Average Watts	650	740	1150	1700	2300		
Total amperes	7.5	7.5	11.2	9.2	10.5		
Unit Power Factor, %	.79	.90	.90	.85	.85		.98
COMPRESSOR							
Hp.	$\frac{1}{6}$	$\frac{1}{2}$	$\frac{3}{4}$	1		$1\frac{1}{2}$	2
REFRIGERANT							
Type		"Freon-12"				"Freon-22"	
FAN MOTOR							
Number				1			
Hp.	1/20	1/20	1/10	$\frac{1}{6}$	$\frac{1}{6}$		
AIR FILTER							
Type				Disposable Fiberglas			
Dimensions ($\frac{1}{2}$ in.)		12 x 21			15 x 23		
NET WEIGHT	185	187	194	217	242		
SPECIAL FEATURES				*Models M-345 and M-1005 only			

UsAircr

U. S. Air Conditioning Corp., Como Ave. S.E. at 33rd, Minneapolis, Minn.

Model No.	7950E-ST	7975E-ST	7975E	7975E-HP	7910E	7910E-HP
APACITY (Btu/hr)	6050	9150	9150	9150	11,000	11,300
IMENSIONS (In.)						
Height	16 3/4	16 3/4	16 3/4	16 3/4	16 3/4	16 3/4
Width	27	27	27	27	27	27
Depth	29 1/4	29 1/4	29 1/4	29 1/4	29 1/4	29 1/4
ABINET						
Material			Fiberglas			
Projection (in.)			2			
Window closing adapter			No			
Controls			Concealed			
Type			Pushbutton			
Thermostat	Opt.	Opt.	Std.	Std.	Std.	Std.
EATING PROVISION						
Type			Elect.	Rev. Cycle	Elect.	Rev. Cycle
IR CAPACITIES						
Circulation (cfm)	220	310	310	310	350	350
Fresh	None	None	60	60	80	80
Exhaust	None	None	150	150	175	175
LECTRICAL						
Voltages	115	115, 208	115, 208,	115, 208,	208, 230	208, 230
		230	230	230		
Total Average Watts	900	900	1250	1250	1475	1475
Total amperes	11.7	13, 8.3,	13, 8.3,	13, 8.3,	9.2, 8.0	9.2, 8.0
		7.5	7.5	7.5		
Unit Power Factor, %	66.0	75, 66, 67	75, 66, 67	75, 66, 67	75, 77	75, 77
OMPRESSOR						
Hp.	1/2	3/4	3/4	3/4	1	1
Cylinders	1	1	1	1	2	2
R.p.m.	1725	1725	1725	1725	1725	1725
Make			Tecumseh			
EFRIGERANT						
Type	F-12	F-22	F-22	F-22	F-22	F-22
Charge (oz.)	15	27	27	27	30	30
AN MOTOR						
Number	1	1	1	1	1	1
R.p.m.	1050	1050	1050/800	1050/800	1050/800	1050/800
Hp.	1/15	1/15	1/15	1/15	1/12	1/12
OIL						
Condenser (rows)	2	3	3	3	4	4
Evaporator (rows)	1	2	2	2	2	2
IR FILTER						
Type			Permanent Cleanable	Type		
Dimensions (1/2 in.)			1/2 x 10 1/2 x 19 3/8		1 1/2 x 10 1/2 x 21 1/8	
ET WEIGHT	170	190	190	190	215	215
SPECIAL FEATURES			Fiberglass Cabinet, Aluminum Base Pan			

Victor

Victor Products Corp., 901 Pope Ave., Hagerstown, Md.

Model No.	VRC50	VRC75-2 VRC75	VRC100	VRC75C				
DIMENSIONS (In.)								
Height	16%	16%	16%	35				
Width	27	27	27	16				
Depth	31%	31%	34	25				
CABINET								
Material	Plastic front, steel housing							
Projection (in.)	13%	13%	15	12				
Controls	Concealed Pushbutton							
Type	- Optional -		Stand.	Opt.				
Thermostat	No							
HEATING PROVISION								
AIR CAPACITIES								
Circulation (c.f.m.)	315	315	405	315				
Fresh	50	50	50	50				
Exhaust	160	160	160	160				
ELECTRICAL								
Voltages	115	115-230	230	115				
Total average watts.....	880	1150-1125	1500	1150				
Total amperes	10.8	13.7	7.5	11.5				
Unit power factor.....	76	80.5	90.5	80.5				
COMPRESSOR								
H.p.	½	¾	1	¾				
Cylinders	1	2	2	2				
R.p.m.	1750	1750	1750	1750				
Make	Tecumseh							
REFRIGERANT								
Type	"F-12"		"F-22"					
Charge (oz.)	45	55	55	55				
FAN MOTOR								
Number	2	2	2	2				
R.p.m.	-1500/1200-		1500/1300	1500/1200				
COIL								
Condenser (rows)	2	3	4	3				
Evaporator (rows)	1	2	3	2				
AIR FILTER								
Type	Throwaway							
Dimensions (½ in.)	— 12x17x½ —		12½x14x1					
NET WEIGHT (lbs.)	180	190	212	176				



BESSEMER BUILDING, PITTSBURGH 22, PA.

At Leading Refrigeration & Heating Wholesalers Everywhere
For Additional Details Write Today for Catalog WT & CT 583

At Leading Refrigeration & Heating Wholesalers Everywhere
For Additional Details Write Today for Catalog WT & CT 583

What Is Solution to Water Problem?

Increasing Facilities for Handling Water Would Cost Cities More Than Individual Conservation Measures

DETROIT—Why cities look at air conditioning and refrigeration equipment first when they start drafting water restriction regulations was explained here recently by H. E. Degler of the Marley Co.

Speaking before the Detroit section of the American Society of Refrigerating Engineers, Degler pointed out that Kansas City discovered that with the rapid growth of air conditioning and refrigeration installations, it had a summer peak load that was five times that of a normal winter day. And 20% of this was attributed to refrigeration and air conditioning.

Added Facilities Would Cost City \$1 per Gal. per Day

To provide the additional water handling facilities needed to meet peak demand would cost the city about \$1 for every gallon per day of capacity.

That means, Degler illustrated, that a 5-ton refrigeration unit using 1½ gals. of water per minute per ton, would use about 4,000 gals. of water in a normal operating day.

To be able to supply that water would cost the city about \$4,000. With a water rate of 14 cents per 1,000 gals., the city would get only about \$60 a year return on it.

Therefore, Degler explained, it is much cheaper all around for the city to require the owner of the refrigeration equipment to invest in a water saver, that would probably cost him about \$1,000, than to invest huge sums of money in increasing its water facilities.

Helps City Catch Up With Demand

This reasoning does not absolve cities from the necessity to increase their water handling facilities, but it does help to keep the expenditures within reason and give city officials time to catch up with demand.

One of the basic problems, Degler noted, is that water use, both in industry and in the home, has more than doubled since 1940. Evidence of this is the large number of water using appliances that are being sold and have been sold since World War II, such as automatic clothes washers, dishwashers, and second bathrooms. People are even bathing more often than they used to, he said.

On top of that, forecasters expect water use to double again by 1970.

Other Factors Accentuate Problem

Other factors accentuating the water problem are a rapidly increasing population—at the rate of 2,500 more births than deaths every day, expanding basic industries such as atomic energy and chemicals that use huge quantities of water, and the cyclical pattern of the weather.

The weather bureau has determined, Degler indicated, that weather runs in approximate 11 year cycles, alternating between generally cooler, wet weather and hot, dry weather.

We are now in a hot, dry cycle, he said, which began in 1951. If the cycle runs true to form, that will mean we will continue to have generally hot and dry weather for another six or seven years.

Then, about 1962, we should get cooler, wet weather for a decade. By 1973, the weather should then turn hot and dry again.

With the predicted doubled water use by 1970, the natural increase in population and the advent of another hot, dry cycle, "what a millennium for the refrigeration and air conditioning industry the 1970's should be!" Degler enthused. His fervent wish was that

he would be around to see it.

But, faced with today's problems today, cities having inadequate water handling facilities have only three ways to turn.

Raises In Rates Won't Cut Use

Their first thought is to raise the water rates, Degler remarked. This, however, proves to be only a temporary measure. People will conserve for a while, but habit is too strong and soon they are using just as much water as they ever did.

The second step is to require water conservation—a step that many cities are currently taking. In some places, water conservation devices are required not only on air conditioning and refrigeration equipment, but on every industrial water using device, he declared.

The third method is to make a demand charge—a flat fee per season on water using equipment, in addition to the water use rate.

He pointed out that Kansas City is considering a \$17 per ton per season demand charge on refrigeration equipment and that St. Louis county has passed a \$40 per ton per season charge. The St. Louis charge is being appealed currently.

Demand Charges Coming

But, regardless of the outcome in St. Louis, Degler believed that the demand charge is definitely coming. "Let a few localities put demand charges on their books and in a very short time, all other localities will try to adopt them," he warned.

Tafel Heads Louisville Group

LOUISVILLE, Ky.—The Wholesale Appliance Association of Louisville has elected Paul Tafel, Jr., co-owner of Tafel Electric & Supply Co., as president for the ensuing year. Thomas W. Kirby was named vice president, and Gordon F. Oates, secretary.

Ruling Makes Commission Salesmen 'Employees' and Subject to Payroll Tax

WASHINGTON, D. C.—The Internal Revenue Service has ruled that commission salesmen hired by retailers to promote the sale of their merchandise are "employees" rather than "independent contractors" and therefore the salesmen's income is subject to the regular payroll tax under the Federal Insurance Contributions Act.

The ruling was made in a case in which a salesman was retained by a retail furniture and appliance firm on a commission basis to call on prospects whose names the company provided.

The firm supplied the salesman with business cards, order books, merchandise catalogs, and demonstrator models of the appliances. It also furnished him a telephone service at its headquarters, which were made available to him.

At times the salesman waited on customers who came into the store. But he didn't have to observe regular working hours.

According to the IRS, this constituted an employer-employee re-

lationship, even though the salesman enjoyed more freedom from employer control than is usually the case for retail personnel.

The agency emphasized that the firm retained authority of the salesman in the performance of the services.

Commercial Equipment Distributors' Jan. Sales 21% Over '54, Inventories Up 34%

WASHINGTON, D. C.—Air Conditioning and commercial refrigeration equipment distributors started off the year with a 21% increase in sales over January, 1954, the U. S. Bureau of the Census reported recently.

At the same time, the Census Bureau said, their inventories at the end of January were 34% ahead of the same date in 1954. Sales by this group of wholesalers were down 8% from December and their inventories were up 3%.

Distributors of electrical appliances, TV and radio sets and parts, and electronic parts and equipment showed a 3% sales gain over last year while inventories moved up 4%. January sales were down 15% from December and inventories were up 6%.

SPEEDY REFRIGERATION SERVICE

easy does it!

WITH ALCO T SERIES THERMO VALVES

...for all temperature ranges, all operating conditions

EASY INSTALLATION
Headroom of 2½ inches is sufficient space for installation and servicing.

EASY SERVICING
Come-apart construction... instant access to all working parts for cleaning, repair, capacity change. No need to break the connections.

EASY TO SPECIFY
Straight through or angle connections—choose the type that fits the job. Parts are interchangeable.

ALCO

Designers and Manufacturers of Thermostatic Expansion Valves, Evaporator Pressure Regulators, Solenoid Valves, Float Valves, Float Switches.

ENGINEERED FOR SERVICE...FOR LIFE

ALCO VALVE CO.

853 KINGSLAND AVE. • ST. LOUIS 5, MO.

SEE YOUR ALCO WHOLESALER

6314

Adequate Wiring on the Instalment Plan

'Cincinnati Plan' Permits Financing of Rewiring Jobs In Residences, Commercial Buildings; Result: A Better Chance To Sell Air Conditioning, More Utility Profit

PHILADELPHIA—The "Cincinnati Plan" for financing the rewiring of residences and commercial establishments has been used by appliance dealers to sell the appliance that necessitated rewiring.

This was reported by Edward J. McGinnis, business manager of the Cincinnati Electrical Association, in speaking before a conference of the International Association of Electrical Leagues.

McGinnis said a good percentage of the rewiring jobs "indicate the installation of major appliances, such as electric ranges, water heaters, clothes dryers, and air conditioning units."

In describing the Cincinnati Plan, the speaker pointed out that "with the appliance industry spending over 130 million dollars annually in promotional efforts, it now finds itself stymied by lack of adequate wiring in millions of homes.

Air Conditioning Booms Rewiring Needs

"The manufacturers face a highly competitive market and are further hampered because their retailers are forced to add to the appliance cost an additional wiring cost. The sudden skyrocketing of air conditioning sales has spotlit this condition.

"Unless something is done about the wiring in the present homes of America the industry stands to lose much in sales during the next several years."

McGinnis continued: "Our utility, as well as many others throughout the nation, has been besieged with requests to subsidize the cost of wiring required for major appliances. They feel that this approach is both ineffective and costly and want no part of it . . .

Time Payments Attractive

"In the utility's approach to this problem, they recognized how attractive the time payment plan is to the American public. . . So what was simpler than an idea whereby the customer could buy his wiring changes on as easy or easier terms than he could his appliance.

"Several Cincinnati banks make a play for the small, personal loan business. They advertise it as a means of financing home repairs and modernization.

"We talked to them about this wiring problem and they said their loans would cover such work. But the procedure was somewhat involved, their agreement forms quite long with lots of small type, and we felt there would be a reluctance on the part of many to make a 'federal case' out of securing a few dollars for a rewiring job that was not really wanted in the first place.

"And we knew that the banks had no real personal interest in this wiring problem, and it would not get the push and promotion required to obtain the desired results.

Added to Utility Bill

"Our utility felt that the solution would be simpler if they financed this wiring and added the monthly cost to the borrower's electric bill. They felt that their credit loss would be small and that standard FHA rates of interest would more than cover their out-of-pocket costs.

"Being under their control they could provide the plan with sufficient promotional efforts to produce the desired results. The general idea received management approval."

McGinnis said the utility's counsel, on checking legal requirements of the plan, reported that the com-

pany's charter did not permit it to operate as a financial institution and lend money but that it could purchase negotiable paper.

The counsel found that if the utility could set up the procedure whereby the company purchased a promissory note, "they could be in business," McGinnis related, adding: "This was easy."

Cincinnati Electrical Assn. Joins Ranks

Feeling that it needed support in the project, the utility found that the Electrical Wholesalers Div. of the Cincinnati Electrical Association would be interested. In June of 1953 a luncheon was held at which the idea was explained.

Reaction was extremely favor-

able, McGinnis recalled, and it was suggested that a meeting be held in the fall to announce the plan to contractors and dealers. A committee then was appointed to work with the utility on all plans.

In the course of several meetings, they developed a theme, a plan of action, promotional material, etc. to stimulate interest in the meeting. Six hundred contractors, dealers, distributors, and wholesalers turned out to hear the plan explained.

"The plan is extremely simple," McGinnis said, "and is based upon the credit rating of the homeowner. It applies to any residence within our service area that is now wired and being served by the utility.

"The wiring can consist of any and all changes from the service entrance to the appliance connection, such as changing from a 2-wire to a 3-wire service, increasing the capacity of service entrance and mainline switch, adding additional circuits, outlets, etc.

"Permanent lighting fixtures and the incidental plumbing in connection with an electric water heater also are included. The installation of a major appliance at the time is not required in order to use this plan.

Note Can Be Paid In 12, 24, 36-Mos. Instalments

"The procedure is also simple. The owner and the electrical contractor reach an agreement on the

work to be done. The company is not involved in such negotiation. The owner executes a note to the contractor covering the contract price plus interest to date of maturity and agrees to pay this note in monthly instalments over 12, 24, or 36 months.

"They then execute an agreement—on the same form containing the note—whereby the owner agrees to the contractor assigning the note to them and further agrees to pay these monthly instalments to them as a part of his regular bill.

"The contractor endorses the note to them without recourse, and mails the form in triplicate to them. If the owner's credit rating is satisfactory, they execute the agreement, sending one copy to the owner and one to the contractor.

"When the contractor's work is finished, he sends the utility an invoice for the contract price together with a copy of the approval certificate issued by the local in-

(Concluded on next page)



1 TYPICAL AC&R CASE HISTORY begins with local G-E sales engineer discussing specifications with customer engineer. At this stage, the G-E engineer often contributes valuable motor application advice which will minimize future problems.

2 FACTORY SUPPORT for local sales engineer, where required, is given by G-E application specialists. Their recommendations and suggestions are backed by long experience gained in dealing with hundreds of varied motor-application problems.

For prompt, expert application help



G-E engineering team discusses advanced features of G-E shaded-pole motors

FULL LINE of G-E shaded-pole motors—from 1.5 watts to $\frac{1}{4}$ hp is discussed by G-E sales engineer Jim Germanson, G-E motor design engineer Bob Ritchey, and G-E application engineer Bill Abel who point out these superior product features:

Sealed-in lubrication makes provision for re-oiling unnecessary, helps increase motor life.

All-angle operation makes it possible for you to mount motor in any position.

Mounting versatility solves problems, too. Use resilient cradle base or end-ring mounting.

GENERAL ELECTRIC

(Concluded from preceding page)
spection bureau.

"They send this certificate to the owner advising him that they are sending a check to the contractor for the full contract price and will start the monthly payments on the next electric bill."

"The minimum monthly payment is \$2, and they are handling the financing themselves without any outside aid. The interest rates are standard FHA rates. In the case of rental property, the agreement must be with the owner of the property."

125,000 Residential Customers Contacted

"In July the utility suggested to the contractors that they jointly enter into a direct mailing the post office simplified addressing system.... Fifty-one contractors participated in this mailing to nearly 125,000 residential customers, which is over one-third of the total residences on their lines....

"In March they broadened their

plan to include commercial establishments."

Reporting results of the plan, McGinnis said that in the first 11 months the plan was in effect, the utility accepted 698 jobs, having a total contract value of \$171,964, from 241 contractors.

"Those taking 12 months to pay represent 16% of the jobs and 10% of the money," he reported. "Those taking 24 months represent 26% of the jobs and 20% of the money. Those taking 36 months represents 58% of the jobs and 70% of the money."

Jobs Average \$247

"The jobs have run from \$24 to \$2,000, with an average of \$247. Relatively few agreements have been refused due to poor credit rating of the property owner."

McGinnis said information obtained from the inspection approval certificates indicates that the wiring "covers about everything in the book." And, he pointed out, "a goodly percentage of the

jobs indicate the installation of major appliances."

McGinnis added that a change was made in the original plan "and was forced upon us by a contractor who was devoid of ethics or principle." He said the result was that the utility prepared an additional release form to be signed by the contractor and the owner at the completion of the job and returned to the company with the contractor's invoice.

"In it," McGinnis explained, "the contractor states that all labor and material has been or will be paid in full and that upon receipt of check for full contract price there is no further obligation on the part of the owner or company."

"The owner states that all work stipulated in the contract has been performed to his satisfaction and that the contractor should be paid in full.

"While this form does not have the legal aspects of a contractor affidavit, they think the moral obligation is sufficient to deter any tendency toward sharp practices."

INSIDE DOPE

U Learn to live and laugh—
Thus delay your epitaph

By GEORGE
F. TAUBENECK

(Concluded from Page 1, Col. 1)

(4) The "keynote" technique ("yours will be the keynote address of the session").

(5) The long-distance call which force-plays a quick decision.

(6) The "intimate friend" technique. If true, hard to turn down.

(7) The "no-one-else-can-do-it" approach. Especially effective on susceptible egotists.

(8) "The-whole-committee-voted-for-you" approach does well with eager-beaver junior executives who want to impress superiors.

(9) The Chicago technique: you find a printed announcement

on your desk that you're scheduled to speak. It's news to you!

Honestly, having been on both sides of the fence, these "techniques" leave us with divided sympathies.

However, the fee-plus-expenses method is the soundest, and the surest.

One Foot In the Door?

A praised study by Walter Horvath indicates that business firms are emphasizing salesmen's training to a much greater degree nowadays than they did in 1946 through 1954. Based on personal interviews and questionnaires received from key sales executives, that study indicates that there will be an unusual burden on salesmen during the coming years.

Trouble is, few are prepared for it.

The pattern of buying created since the Korean war—relatively short periods of accelerated purchasing, especially by consumers, followed by periods of inactivity—is creating a sense of confusion in many large sales forces."

Increased sales training programs constitute the lever which many top executives are using to pry loose latent sales activity. "Businessmen," according to Horvath, "are determined not to let the mistakes of the World War periods happen again, when salesmen were permitted to get 'soft' during the easy selling period and had little idea of how to handle a difficult role."

Immodestly, let us mention that our own books, "One Foot In the Door," "Both Feet on the Ground," "It's a Great Life," and "The Marshal's Baton" are being used successfully in several sales training programs. Details on request.

Handicapped Children

Model kitchen equipment with the latest home appliances is helping crippled youngsters at the Los Angeles Orthopaedic Hospital to lead a normal life despite their handicaps.

Their kitchen is part of a newly opened rehabilitation wing at a local hospital. Two gas utility companies, and three gas appliance manufacturers, cooperated in designing and equipping that kitchen so that handicapped teen-agers can learn to "keep house." Youngsters in this hospital are being taught to plan meals; to prepare, cook, and serve foods; to wash dishes, and to mop floors.

"Little girls like to pretend to keep house, and so do the boys for that matter," reports Miss Susan Roen, the hospital's director of physical therapy. "So they can have fun while they receive treatment."

Said model kitchen was planned by the staffs of the Southern Counties Gas Co. and the Southern California Gas Co. Involved appliances include an 11-ft. Servel gas refrigerator, with separate horizontal freezer compartment; a Whirlpool washer-dryer combination, and an O'Keefe & Merritt gas range with a "top-view" mirror and glass door.

Spokesmen for gas companies report that current equipment in that kitchen will be replaced without charge whenever there is a major model change so that the crippled youngsters will always have the latest and best appliances with which to learn to do everyday tasks for themselves.

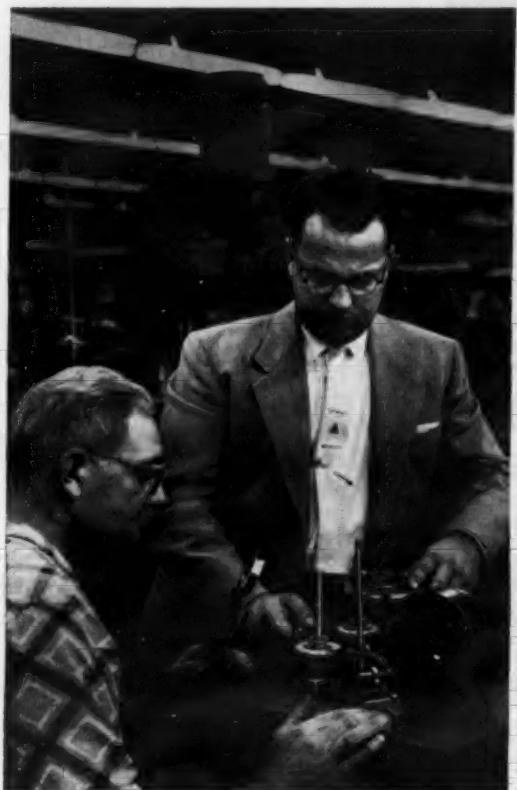
Facilities in the new wing of the hospital can accommodate 75 patients a day.

Here's a Switch

One of our friends agreed to do the housework and mind the kids on a Saturday while his wife golfed. He was stashing luncheon dishes when the doorbell rang.

Still aproned, he opened the front door, where he was confronted by . . .

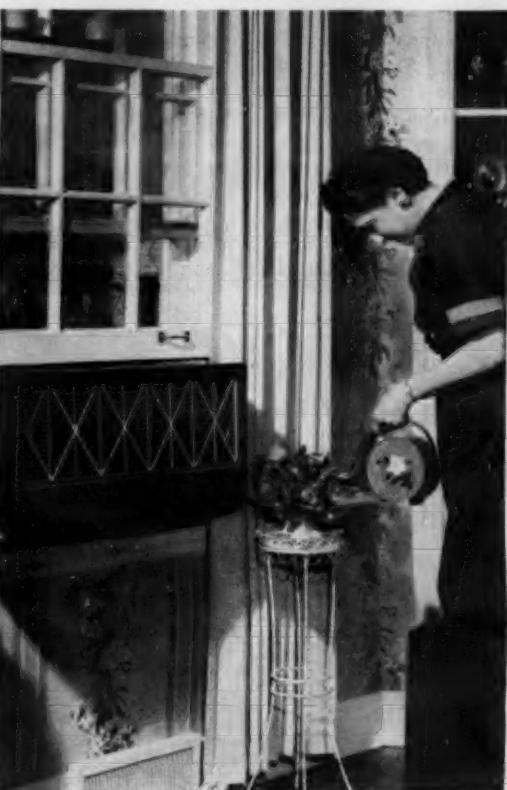
A Fuller Brush woman.



3 DESIGN MODIFICATIONS of standard G-E shaded-pole motors, if necessary to meet customer's needs, are guided by G-E motor design engineers.



4 EXTENSIVE TESTING of customer's equipment checks motor performance under actual operating conditions—either in G-E laboratories or customer's plant.



5 USER SATISFACTION is a result of proper motor application and tested designs. G-E application help continues until this is assured.

plus top performance features, call in G.E. on shaded-pole motors

Expert local assistance, factory specialists meet all your needs

You benefit two ways when you select General Electric shaded-pole motors for your air-conditioning and refrigeration equipment:

FIRST, you add to your product quality. With G-E shaded-pole motors you get top performance features such as all-angle operation, sealed-in lubrication, and quiet, long-life operation—plus many other advantages of G-E design leadership.

SECOND, you are assured of complete motor application assistance—at every stage of your product development—by experienced G-E motor engineers, both local and factory located. In working on your problems,

these men will have at their disposal G.E.'s extensive motor development and testing facilities.

RESULT: This combination of top-quality motors and complete application service assures you the best possible motor performance on your products—with resulting customer satisfaction. To take full advantage of this over-all service, call in your local G-E Apparatus Sales Engineer *early in the design stage* of your new models—when he can help you most.

FOR MORE INFORMATION on G-E shaded-pole motors, contact your nearby G-E Apparatus Sales Office, today, or write for Bulletin GEA-6134 to Sect. 704-45, General Electric Company, Schenectady 5, New York.

Progress Is Our Most Important Product

GENERAL ELECTRIC



Duffy Named To Manage Sales for Jamison Door

HAGERSTOWN, Md.—Patrick J. Duffy has been appointed general sales manager of Jamison Cold Storage Door Co., it was announced recently.

In his new position he will direct sales of both the company's Cold Storage Door Div. and Engineered Door Div.

Patrick J. Duffy Duffy succeeds the late Fred H. Wagner, Jr., who was Jamison sales manager for more than 15 years. Until Wagner's recent death, Duffy had served as assistant sales manager on assignments outside his own Baltimore-Washington sales territory.

He joined Jamison in 1941 as a member of the sales force, and served until his recent home office appointment as Jamison sales representative in the Baltimore and Washington area.

Before he started with Jamison, Duffy was employed in sales promotion work in the New York area by Frigidaire Div. of General Motors Corp. He is current secretary of the Baltimore-Washington Section, American Society of Refrigerating Engineers.



Chicago Distributor To Handle Unarco In Metropolitan Area

CHICAGO—Heating and Cooling Products, Inc. has been named distributor for Union Asbestos & Rubber Co.'s heating and air conditioning products in the Chicago metropolitan area, it was announced recently by Chester S. Stackpole, general sales manager of the company's Heating and Cooling Div.

Immediately after the formal signing of the contract, Norman Weinstein, president of Heating and Cooling Products, placed an order in excess of \$1,000,000 for Unarco package units, water chillers, dual-vectors, and heating equipment, ranging from unit heaters to convectors, the announcement said.

2 Representatives Appointed By Connor Engineering Corp.

DANBURY, Conn.—Connor Engineering Corp. has appointed Frederic S. Bartlett, Ardmore, Pa., to represent the Kno-Draft residential diffuser line in southern New Jersey, eastern Pennsylvania, Delaware, and Maryland.

The company also named the John W. Joiner Co. as its representative in the Dallas-Ft. Worth area.

Reco Appoints Weissman To Vice Presidency In New Expansion Move

NEW YORK CITY—In a move to augment further its new expansion program, Reco Sales & Engineering Corp., manufacturer of pre-fabricated cold storage and freezing rooms, has appointed Murray I. Weissman as vice president.

Weissman, who has for several years managed the midwest sales branch for Reco, will move his headquarters to the New York office.

Weissman, an engineering graduate, has been for many years active in the ice cream and dairy industry.

At the same time that Weissman's appointment was announced, six new representatives for the company were also appointed so that sales engineering coverage is now maintained by Reco throughout the midwest, southwest, southern middle Atlantic, and New England states, the company reported.

Iron Fireman Appoints 2

CLEVELAND—Appointment of Albert L. Niemoller as manager for commercial industrial equipment sales in Portland, Ore., and Jack Hune as district sales manager for Oregon and parts of Washington and Idaho, was announced recently by the Iron Fireman Mfg. Co. here.

INDUSTRIAL applications



CLOSE TOLERANCES are made possible by the recent installation of a Typhoon packaged air conditioner in the metal parts manufacturing plant of Dornson Corp. in Los Angeles. The packaged unit acts as the heart of the system with ducts and outlet grilles furnishing air to critical parts of the shop.

Metal Parts Producer Uses Air Conditioning To Keep Close Tolerances

LOS ANGELES—Air conditioning is playing a key role in precision manufacturing operations at the Dornson Corp., a metal parts manufacturing firm which is located here.

At the Dornson plant, stable temperatures were especially needed for the operation of the firm's Pratt & Whitney 1-E jig borer, which operates at 00 tolerances at 68-70° F. temperatures.

Expansion and contraction of metal parts—aluminum parts in particular—were vitally affecting close tolerances. Harry Dobson, proprietor and general manager of Dornson, states that variations of .0008 were noted over a 15° temperature range.

It was decided to air condition the Dornson plant in order to maintain the stable temperatures necessary for precise machining. Although the building housing the manufacturing operations is located less than three miles from the Pacific Ocean and therefore is in the California coastline's "cool zone," air conditioning was nevertheless required to maintain the proper temperature conditions.

With the installation of air conditioning, the problems of metal expansion and contraction were eliminated. The equipment—a Typhoon model 214 SC 20-ton packaged air conditioner, serves as the heart of a central system using ducts, with outlet grilles located at critical spots throughout the plant.

Installation was made by the D. L. Kissel Co. of Los Angeles.

The office area at the Dornson plant is also air conditioned by the same system. A motorized, thermostat-controlled damper is situated in the ductwork to control the distribution of cool air to the office area, as the lower temperatures required in the plant are not necessary for office comfort.

B&G Manual Helps Pick Cooling Tower Pump, Piping

MORTON GROVE, Ill.—A brand new six-step manual for sizing cooling tower pumps and piping was introduced recently by Bell & Gossett Co. here.

The new eight-page manual is claimed to be the first of its kind. Patterned after the procedure used in the B&G Handbook, by means of six simple steps, efficient and economical selection of cooling tower pump and piping can be made, it was stated.

Also released at the same time was the company's newly revised selection chart and list price sheet CSP-155 on Series 1522 and 1531 centrifugal pumps.

Columbus Air Conditioning Names Dorsh Sales Manager

COLUMBUS, Ohio—Appointment of Mack Dorsh as sales manager of the Columbus Air Conditioning Corp. was announced recently by A. T. English, president and general manager of the firm.

NOLIN
Leads the Field

New
Dry Beverage Cooler

- LEADS IN CAPACITY
- LEADS IN QUALITY
- LEADS IN PERFORMANCE
- LOWEST IN PRICE

NOLIN MANUFACTURING COMPANY
1400 LLOYD ST. PH. LD 57
MONTGOMERY, ALABAMA

THERMOSTATIC EXPANSION VALVES



V-200 Series
Flare nut models for
standard applications



V-202 and V-203 Series
Flange models for
commercial and industrial
applications

FOR REFRIGERATION AND AIR CONDITIONING



V-204 and V-205 Series
Integral sweat fitting
models for all temperature
applications



V-200 Custom Series
For automotive and
self-contained systems

*CHECK THESE COMPLETE LINE SPECIFICATIONS

CAPACITIES	(in tons of refrigeration) 1/2, 1, 2, 2 1/2, 3, 3 1/2, 5, 6 1/2
SIZES	INLET: 1/4, 3/8, 1/2, 5/8, 7/8, 1 1/8 OUTLET: 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1 1/8
VARIATIONS	Internal equalizer, external equalizer Comb. internal/external equalizer Adjustable or non-adjustable superheat
TYPE CONNECTION	Flare nut, integral sweat fitting, flanged, tongue and groove, and applicable combinations
CHARGE	Gas filled, liquid filled
REFRIGERANTS	Freon 12, freon 22, methyl chloride, sulphur dioxide
FEATURES	Selective orifice sizes, removable strainer in valve inlet

*Not all valves are available in all variations.

General Controls' red shield has the confidence of the refrigeration field—where control really counts—for accurate sensitivity... for field application facility... for job versatility... for dependable durability. You'll want complete details on the newest V-200 valves, and they're yours for the asking. Write for catalog 54R—805 Allen Ave., Glendale, Calif.

GENERAL CONTROLS

PLANTS: GLENDALE, CAL. • BURBANK, CAL. • SKOKIE, ILL. • 38 BRANCH OFFICES SERVING THE NATION

America's Finest Automatic Controls

MANUFACTURERS OF AUTOMATIC CONTROLS FOR THE HOME, INDUSTRY, AND THE MILITARY



Bulletin 709SP Single Phase
Solenoid Motor Starter in
NEMA 1 enclosure. Other en-
closures available.

SOLENOID STARTERS for Single Phase Motors

This rugged and reliable solenoid starter provides accurate overload protection for single phase motors up to 3 hp, 110 v; 5 hp, 220 v. Its double break, silver alloy contacts need no cleaning, filing, or dressing. Start and stop push buttons or selector switch in cover can be supplied.

Allen-Bradley Co.
1313 S. First St., Milwaukee 4, Wis.
In Canada
Allen-Bradley Canada Ltd., Galt, Ont.



39 Room Air Conditioners Solve Problem of Limited Funds, Large Areas To Be Cooled, Old Bldg.

WICHITA, Kan.—Advantages of air conditioning an old building with large floor space by individual window units was demonstrated effectively for the city of Wichita, the O. A. Sutton Corp. reports.

Last year, the city air conditioned the first three floors of its 60-year-old city hall with 39 Vornado window units and one water-cooled room air conditioner. So pleased were the city commissioners with this installation, the manufacturer reports, that this year, the city is doing the same thing with the police department building.

When the question of air conditioning the city hall came up, city officials were faced with the problem of doing the job with limited funds. They thoroughly investigated all types of air conditioning and came up with an individual window unit installation plan that cost less and did more than city officials expected.

Bldg. Built In 1890

Wichita has a city hall that was built in 1890. Huge thick walls of stone support the four-story structure. Inside the building similar thick heavy stone walls separate various sections, posing a nightmare for interior construction changes.

When the city commissioners decided to air condition the building they estimated \$70,000 as the maximum expenditure the city could afford for the project. John Pierce, city purchasing agent, was instructed by City Manager E. N. Smith to survey the building, and recommend a system that would do the job and keep within the estimated figure.

Hysom and Associates, consulting engineer, was called in to estimate the building's requirements for heat load. They were also to work with Pierce in selecting the type of system to use in the building.

Thick Walls Deter Ductwork

Results of their work showed that it would be prohibitive for the city to install a central system. Necessary ductwork would require cutting through thick walls of solid stone and concealed wall hazards made estimates for such an installation run into big figures. It was estimated that cost for such a system would be about \$137,000.

It was the opinion of the engineers that the fourth floor could be handled with a central system as necessary ductwork for that area could be run through attic areas. Individual window units were specified for first, second, and third floor areas with necessary electrical outlets for their operation.

The city specified that units be designed to operate on 208 volts due to the building's power facilities. Other requirements included thermal overload protection, single speed, replaceable filters, thermostatic control for automatic operation, and a removable tarp for winter weather protection.

The city further specified that the units had to be securely installed without drifting into existing marble window sills. Where steam radiators interfered, special bases had to be built for the units.

Sizes Range from $\frac{1}{2}$ -Hp. to $1\frac{1}{2}$ -Hp.

The 39 individual room units needed to do the job consisted of five $\frac{1}{2}$ -hp. units, eight $\frac{3}{4}$ -hp. units, 21 1-hp. units, and five $1\frac{1}{2}$ -hp. units. The water-cooled console unit for the third floor was a 1-hp. model with 10,000 B.t.u. capacity under ASRE conditions.

Installation of the window units throughout the building was completed in June 1954. When the city added up its total bill for air con-

ditioning three floors with window units it came to only about \$14,000 including cost of running wiring. Estimated cost for the job had been \$16,000 and the city fathers were really happy.

Low bidder for the window units was Jack Hyde, of the Hyde Furnace Co. of Wichita, a retail dealer for Vornado air conditioners. He submitted his bid, based on Vornado units which came well within all limits specified by the consulting engineer.

Summer Temperatures Set Record

The summer of 1954 was a hot one in the Wichita area. Temperatures running as high as 113° hit the community and lack of rainfall really made summer heat a

problem. Weather bureau records at Wichita show that July was the hottest month ever recorded in the city. Average high temperature for the month was 102.6° F.

"We really had a summer that gave our Vornado air conditioner a workout," Pierce said.

"When we planned for the individual window units we thought that we would have to keep office doors closed by we've found that has not been necessary. Actually the units have cooled the halls of the building too and that's been a plus advantage we did not expect."

An old building such as Wichita's city hall has several "inside rooms." With the installation of the individual window air conditioners employees found that those rooms became usable and pleasant



during summer months. Previous to air conditioning such rooms were deserted during summer months and occupants crowded into rooms with outside windows.

"We're really happy with our air conditioning," said Pierce. "First, because we got better than expected results with the Vornado units as an over-all lower cost, and second, because we've found that personnel efficiency was maintained at high levels during the hottest summer months."

Pierce added that there was no way to figure the actual savings air conditioning had made the city in efficiency of personnel but he did recall pre-air conditioned summers when employees got "little or nothing done" after about 2 p.m.

"We knew, he said, "that air conditioning would certainly be beneficial but we did not fully realize just how much it would increase our summertime efficiency."

"Naturally we had a problem with an old building, but our experience with Vornado window units under tremendous loads has certainly shown that old buildings can be effectively air conditioned and at reasonable cost."

Hysom, the consulting engineer for the project, stated that "one of the reasons for the success of this air conditioning job was the deep penetration of air distribution which let us cool inside rooms separated by half partitions. The police department building is similar to the city hall.

nothing measures up to a MITCHELL ROOM AIR CONDITIONER



For greater heat transfer, MITCHELL has built into its '55 Super High-Capacity Chassis the largest condenser ever used in a $\frac{1}{4}$ H.P. unit. Measure it.

Notice the extra large Blower Wheel on a MITCHELL. This, together with the larger evaporator, results in a 20% greater movement of air...and the giant condenser fan actually discharges 650 cubic feet per minute.

Notice the giant half-inch tubing in this bigger, MITCHELL evaporator. Look at the wide face area that cuts down internal resistance for high capacity, quiet operation.



Another MITCHELL exclusive—the fast cooling feature. A revolutionary principle of discharging the air through a restricted opening increases air velocity from 750 feet per minute to over 1,000.

The direction of air discharge can be a critical sales factor. That's why MITCHELL, without adding complicated gadgets, has designed '55 units to send draft free air in any one of 20 directions.

Accordion pleated, weather-proof, nylon sides, slide out to fill the window opening. Old-fashioned cutting and filling with Masonite is a thing of the past.

Your only choice for 1955 if you want to sell quality at a price!

...and only with MITCHELL can you merchandise the Seal of Approval of the United States Testing Laboratory.



MITCHELL

the world's finest
room air conditioner

MITCHELL MANUFACTURING COMPANY

DEPT. AC-4 2525 CLYBURN AVE. • CHICAGO 14, ILL.

IN CANADA • 19 WATERMAN AVE. • TORONTO



Commercial Refrigeration

NARGUS Plans Morning Business Sessions, Afternoon Exhibits In Chicago June 12-16

CHICAGO—Business sessions in the morning and exhibit hours in the afternoon will be an innovation at the 56th annual convention of the National Association of Retail Grocers to be held June 12-16 at the Navy Pier here.

Except for the opening day, Sunday, June 12, all NARGUS business meetings will be scheduled for morning hours (9 a.m. to 12:30 p.m.) when the food industries exhibition will be closed.

During the afternoon (noon to

5 p.m.) retailers may visit leisurely and without interruption, the mile of displays of food and grocery products, equipment and fixtures, and non-food items.

Meat and produce merchandising will be highlighted during the five-day meeting. With the help of successful food store operators, Clifford E. Bowes and Lee Thompson, Jr., NARGUS Meat and Produce Div. directors, respectively, will present detailed information on what's new in merchandising.

Cold Storage Plant on Farm Ups Efficiency, Fruit Grower Discovers

ROCHESTER, N. Y.—A cold storage plant on the farm will bring added efficiency in the marketing of the apple crop, John Goodrich of Burt, N. Y., told the annual meeting of the New York Horticultural Society at Edgerton Park here.

At a cost of approximately \$22,590 and with machinery designed for a 15,000 bushel capacity, his plant now is in its first year of operation, the Burt fruit grower said.

"The building already has started paying for itself," he told the 200 fruit growers in the auditorium. "Of course my setup will not reach top efficiency until I can afford to construct a new packing

room adjoining the storage."

Goodrich does not advocate the storing of all the crop. Storage of a bit more than half of his crop has worked out well for him.

Factors in favor of a farm storage plant, cited by Goodrich, include: faster movement into the plant from the orchard; elimination of mouse damage; rough handling and other losses common to commercial storage; the ability to pack the fruit when the farmer is ready for this operation, especially in humid weather; and to cut out the expensive charges for hauling to storage and back to the farm.

He also sees better sales possibilities in the roadside marketing of pears and peaches.

Most Safeways To Have Self-Serve Meat By Year-End—See Centralized Packing

SAN FRANCISCO—Reporting that most Safeway stores will be selling meat on a self-service basis by the end of this year, a company official said centralized pre-packaging is now regarded by the firm as the coming thing.

The speaker was D. M. Peckham, meat research department manager of the Brewster research division of Safeway Stores, Inc. He addressed the Western States Meat Packers Association.

By the end of 1955, he said, all larger Safeway units and most medium and smaller stores will

have self-service meat departments. The company favors 100% self-service meats, it was noted.

Pointing out that Safeway believes centralized packaging will be the next stop in meat merchandising, Peckham said this will make possible "almost undreamed of reductions in marketing costs."

He added: "While there have been tremendous strides made in self-service meat operations during the past year, there is no question that in-store cutting and packaging is not efficient as compared to a centralized operation."

Koch Names Cowger Sales Representative In Mid-Central Area

NORTH KANSAS CITY, Mo.—Taylor U. Cowger has been appointed sales representative for Koch Refrigerators, Inc. in the mid-central area, comprising Illinois, Indiana, Michigan, and Wisconsin, the company announced recently.

From 1938 to 1940 he was the Koch representative in nine southern states, with his headquarters in Dallas.



T. U. Cowger

Cowger attended Iowa State college and Drake university. He has been in the refrigeration business since 1930, and during that time has served as sales representative, regional manager, and special representative.

He has managed commercial refrigeration, parts, and service departments, and for two years was general manager for M. E. O'Bannon in Tulsa, Okla. Immediately before rejoining Koch Refrigerators, he was sales manager for the Cooling Tower Div. of Havens Structural Steel Co., according to the company's announcement.

'Scotsman' Distributors See New Ice Machines, Hear Merchandising Plans

ALBERT LEA, Minn.—"Scotsman" ice machine distributors met recently in meetings at which American Gas Machine Co. presented the 1955 sales program and introduced two new additions to the line—the model SF75WSE "Super Flaker" and the Scotsman "Super Bar." The meetings were held in Chicago, New York City, Atlanta, and Dallas.

R. J. Lickteig, sales manager, described the expanded sales and advertising program for the coming year. He predicted that 1955 would be another record sales year for the Scotsman ice machines. Last year the firm set a new record for increased sales, it was reported.

Restaurant Survey Shows Frozen Food Use Rising

CHICAGO—Fifty-seven per cent of the restaurant operators replying to a recent survey reported an increase in frozen food use of 50% or more.

Over 93% of the operators participating in the study said they used frozen foods. Twenty-one per cent indicated a 100% increase in use of frozen foods, and 11% said they were using 300% more. The survey was conducted by American Restaurant magazine.

Sherer Sales, Profit Exceed Record of '53; Sales Total \$2,707,593

MARSHALL, Mich.—Sales of Sherer-Gillett Co. in 1954 exceeded record-breaking 1953 by "a nominal sum" but net profit gained nearly 10%, according to the annual report to stockholders.

Net sales last year totaled \$2,707,593, up 1.4% from the previous high of \$2,669,328 in 1953. Net profit amounted to \$88,690, compared with \$81,042 a year earlier.

The increased profit ratio was attributed by John H. Coolidge, president, to increased efficiency in manufacturing operations. Earnings in 1954 were equal to 58 cents per common share (after preferred and Class A preference dividends), against 55 cents in 1953.

Company records reveal that for the third straight year, sales volume has shown a larger-than-industry gain over the preceding year, it was pointed out.

The report indicated an expectancy that 1955 would be a good year for the company since its current line of display refrigerators is a "better balanced one than ever before in its appeal to that segment of the food market industry which accounts for the largest percentage of refrigerator purchases—the supermarkets."

It's NEW... it's designed for HEATING-THERMOSTAT

the smart, modern thermostat that ends Hot-n-Cold Living!

New... all new... the Penn Series 880 Heating and Cooling Thermostat is the result of more than a year's research and testing. It embodies all of Penn's many years of experience in designing and building BOTH heating and cooling controls for leading manufacturers of heating and refrigeration equipment.

Small, compact with modern horizontal lines, the Series 880 incorporates today's greatest features in heating and cooling thermostats. It has the time-tested snap-acting contact structure that

is still the very best for sturdiness and long-life dependable operation. Then, there is the Penn-made magic of heat anticipation and cold anticipation that assure closer temperature and humidity regulation, the year 'round, to end Hot-n-Cold Living! And, there are many more... just look at the features listed on the opposite page.

Don't settle for less when Penn costs no more! Be sure the packaged air conditioning you sell and install is fully equipped with Penn automatic controls. **Penn Controls, Inc., Goshen, Indiana.**

Designed for comfortable living



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LA CROSSE KUBE KING Automatic ICE MACHINE

Kube King, the leader in practical design, economical operation produces approx. 2,000 kubes every 24 hours... storage bin holds about 75 lbs... uses only 5 qts. of water per freezing cycle.



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At Research Residence No. 2

Satisfactory Residential Cooling Obtained With Small-Pipe Perimeter Duct System

CLEVELAND—"A very satisfactory job of cooling" can be obtained with a small-pipe perimeter duct system in a small residence, the National Warm Air Heating and Air Conditioning Association was informed at a recent meeting.

This was brought out in a talk by D. R. Bahnfleth describing studies made during the summer of 1954 on Research Residence No. 2 at the University of Illinois.

Tests on cooling were instituted last year in the research residences where the association and the university have been conducting joint studies on heating for several years.

CYCLIC BLOWER OPERATION REMOVES MORE MOISTURE

It was also claimed by Bahnfleth that intermittent or cyclic operation of the blower resulted in much greater moisture removal by the system than with the blower running continuously.

Residence in question is a one-story frame structure. It has cedar shingles on the exterior, and the interior walls are finished with hardwood veneer plywood paneling.

The walls and ceiling of the

residence are fully insulated. The attic is open and vented and has louvers in the gable ends and continuous openings underneath the eaves on the north and south. The south exposure of the residence is shaded by a 3-ft. 10-in. roof overhang, and canvas awnings shade the windows on the east and west.

The residence has a floor area of approximately 1,040 sq. ft. Approximately one quarter of the exposed wall area is glass.

During the 1954 cooling season, the residence was occupied by a family of two adults and two small children. The cooling load, calculated by the second edition of Manual 11, was 27,400 B.t.u.h.

DUCT SYSTEM DESCRIBED

The duct system consisted of two uniformly sized trunk ducts, or extended plenums, extending to the east and to the west from the year-round air conditioning unit. Four-inch diameter branch ducts extended from the plenum to the register boots.

Except in the kitchen, 2½-in. by 14-in. floor diffusers were located underneath the windows at the outside walls.

The year-round air conditioner consisted of a 70,000 B.t.u.h. input gas-fired hi-boy furnace, and a 2-hp. mechanical condensing unit. The cooling unit was water cooled, and no water conserving devices were used.

The rated capacity of the cooling unit was 24,100 B.t.u.h. with an air-flow rate of 800 c.f.m. The actual capacity as measured in the residence was 19,500 B.t.u.h. with an air-flow rate of 560 c.f.m., Bahnfleth said.

"In these studies, only the first story was conditioned. The thermostat was located in the hall and was set to maintain a temperature of 75° F. No attempt was made to control or limit the activities of the occupants, but records of such activities as oven operation, door openings, and washing machine operations were made.

2 SERIES OF STUDIES

"Two main series of studies were conducted. The first of these, Series S54-1, was conducted with the blower operating continuously. The second, Series S54-2, was conducted with the blower cycled with the compressor.

"In addition, for a short time

Residential Air Conditioning

during Series S54-2, the occupants of the residence were out of town, and some information on the performance of the system when the residence was unoccupied was obtained," he added.

"It was found that the small-pipe perimeter system did a very satisfactory job of cooling Research Residence No. 2," Bahnfleth declared.

VELOCITY OF AIR IS IMPORTANT FACTOR

"One of the important factors with this type of installation is the velocity of the air as it leaves the floor diffusers, because the cool air leaving the diffuser must have sufficient velocity that it is forced up into the living zone of the house.

"More uniform room-air temperatures were experienced between the floor level and the breathing level when the diffuser face velocity was 500 f.p.m. or higher. This amounts to approximately 60 c.f.m. when 2½-in. by 14-in. floor diffusers are used," he explained.

"The studies indicated that even though the thermostat was set to maintain a temperature of 75° F. within the house, the compressor operation was a function of mean daily temperature above 60° F.

"Thus, on a day when the average of the maximum temperature and the minimum temperature during the previous night was 60° F. or above, the compressor would operate. With the residence unoccupied, as it was during a part of the summer, this datum mean temperature was found to be 65° F.

MAJOR EFFECT OF CYCLING BLOWER WITH COMPRESSOR

"The major effect of cycling the blower with the compressor was to increase the amount of moisture removed by the cooling unit," he revealed.

"During periods of compressor operation, moisture is condensed from the air onto the cooling coil. When the blower operates continuously, the moisture stored on the coil at the end of a compressor operation is re-evaporated into the air stream.

"With cyclic blower operation, however, this re-evaporation is reduced, and as much as 15 lbs. of water per day more was collected during cyclic blower operation than during continuous blower operation.

SOME INTERESTING COMMENTS BY OCCUPANTS

A few comments of the occupants might be of interest. It has been anticipated that an unsatisfactory odor level might be maintained since the residence was kept closed at all times, and no ventilation air was mechanically introduced. It was found, however, that this did not occur.

"The condensate from the cooling coil was used by the occupants for a sterilizing process, and it was discovered that strong odors were driven off from the boiling condensate. This indicated that odors were being absorbed by the moisture on the cooling coil," Bahnfleth said.

"One other comment concerning

the noise level obtained with high air-flow rates through the small ducts and diffusers is pertinent. The maximum velocity in the ducts was in the neighborhood of 1,100 f.p.m., and it is felt that this is on the threshold of objectionable noise. Of course, these are the comments of only one family. Others might be more or less sensitive to both the odor and noise problems," he suggested.

American Radiator Names Shields Sunbeam Controller

NEW YORK CITY—James L. Shields has been appointed controller of the Sunbeam Air Conditioner Div. of American Radiator & Standard Sanitary Corp., T. W. McNeill, president of the division, has announced.

Shields joined American-Standard in 1952 in the audit department and in December, 1954 was transferred to the Sunbeam Div. as supervisor of administrative planning.

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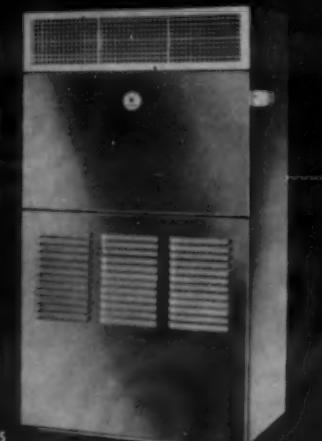
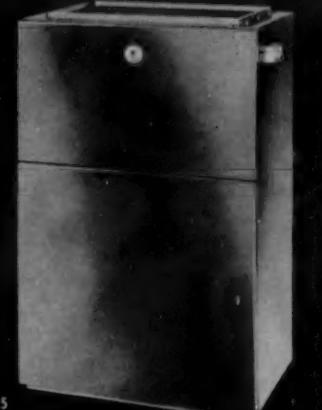
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Newest additions to the famous "Weatherwise" line, these self-contained complete package units offer modern cabinet styling plus these advanced engineering features: one and three-phase hermetic compressors; counterflow cleanable type condensers; aluminum fin evaporators with copper tube and capillary feed; and new cooling-heating switch controls suitable for remote installation and use with standard thermostats. Also available without plenum and fan, or equipped with steam coils.

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with all these features...

- Compact, modern horizontal "New Look" in room thermostats.
- Attractive neutral-colored plastic cover blends with any color scheme.
- Single dial heating and cooling setting simplifies homeowner's operation.
- Penn "heat anticipation" holds heating temperature within one degree of selected level.
- Penn "cold anticipation" assures closer control of cooling temperature and lowest relative humidity.
- Complete flexibility of fan control to meet all design and application conditions.
- Choice of one manual switch for system and one for fan . . . or single manual switch combining both.
- Snap-acting magnet contacts, time-tested on Penn heating and cooling thermostats in over 20 years of field experience.
- Changeover from heating to cooling may be manual only; automatic only; or combination manual and automatic for homeowner selection according to his needs.
- Seven models available . . . for cooling only; heating and cooling; or heating and two-stage cooling . . . to fulfill all possible air conditioning needs.

What Happened to Residential Air Conditioning In Wilmington, Del., During 1954

209 of 252 Installations Went Into New Homes, 160 of These Were on the Buyer's Decision; '55 Prospects 'Much Brighter'

By C. Dale Mericle

WILMINGTON, Del.—Air conditioning of homes is well on its way here as in many other cities.

Another in the series of surveys made by AIR CONDITIONING & REFRIGERATION NEWS reveals that 252 residential air conditioning systems were installed by 10 contractors during 1954 in this well-known eastern seaboard city, which is just about at the border between "north and south."

Prospects for a big increase in 1955 are excellent, according to contractors. One already has an order to air condition 400 homes in a single project, many of which will be built this year.

"Last year we also installed 50 'combination' systems without the cooling cycle," adds this same contractor, indicating that this represents 50 "sure prospects" for the addition of summer cooling.

"Prospects are excellent this year," said another contractor. "Much brighter this year, already moving faster," commented a third.

In this survey the News asked the same questions of Wilmington contractors and distributors as were brought out in the previous

city-wide surveys made in the active markets of Cincinnati, Fort Worth, Memphis, and Wichita, as well as Minneapolis.

Results of the Wilmington survey are summarized in the accompanying table.

Here it will be seen that of the 252 jobs installed in Wilmington area homes last year, 43 went into existing homes and the balance, 209, into new homes.

Relatively Few Going Into Existing Homes

The relatively small number of installations made in existing homes here last year contrasts sharply with the pattern noted in the previous surveys.

In Cincinnati, for example, 231 of the 567 jobs last year went into existing homes.

Wilmington contractors report increasing interest in air conditioning on the part of the speculative home builder. The record for 1954 shows that of the new home systems, 160 were installed upon the decision of the home buyer, as compared with 49 installed by the builder on a speculative basis.

Only two of the 10 contractors

in Wilmington reported "builder" type installations. Contractor A put in two such; contractor B, 47.

The two installations of contractor A were each in model homes, on the basis of which air conditioning was sold to the individual home buyers. Altogether, contractor A installed 90 systems in new homes where the owner made the choice.

Contractor B, who put 47 systems in for a builder and another 19 in new homes at the decision of the owner, explains that the latter went into a recently completed development.

"The builder of this development of some 60 homes, not to be outdone by his competitor who had air conditioned the 47 homes, went back and sold air conditioning to 19 of the families who had just purchased his homes without it," explains the contractor.

"This is probably all the more remarkable," he says, "because these sales meant an addition to the buyer's home payments. It was too late to include air conditioning on the original home financing arrangements."

A check was also made of the

The story published on these pages is one of a series on just what is happening to residential air conditioning in a number of areas in the country.

There has been a great deal written about the future of the market for residential air conditioning systems, but remarkably little about what has actually happened in the sale and installation of such equipment.

In order to present a factual picture of the number and kind of systems that have been sold, and the type of businesses that have done the selling and installing, the News sent Associate Editor C. Dale Mericle into some of the areas that have been good markets—active areas such as Wichita, Kan.; Fort Worth, Texas; Memphis, Tenn., and Cincinnati, Ohio. These areas have long summers and mild winters, a natural for residential air conditioning.

Following these areas Mericle reported on Minneapolis, which is famous for its zero temperatures. His latest survey, presented on these pages, is from Wilmington, Del., which is described as "just about on the border between 'north and south.'"

Instructions were to report as completely as possible on just what did happen in residential air conditioning in these areas. Mericle's reports on the southern areas were published in the News Oct. 18, Nov. 8, Nov. 29, and Jan. 24. In the Jan. 10 issue conditions in Minneapolis were described.

Wilmington contractors' residential installations as to the type of condensing medium used—air or water.

◆

The tabulated summary shows 36 air-cooled jobs compared with 216 water-cooled systems. And of the water-cooled systems, 47 had cooling towers and two employed evaporative condensers.

The 95 installations of contractor A were all straight water cooled without towers. Contractor B, however, used towers on 19 of his 75 jobs, all water cooled. Contractor C used 18 towers on 24 water-cooled installations.

All 20 of the units put in by contractor D, however, were air cooled. Contractors F, H, and J also used only air-cooled units.

Two of the four installations made by Contractor I were originally air-cooled systems, being built-up rather than package installations. Later, however, he

changed these, installing evaporative condensers instead.

(Only the evaporative condensers are listed in the table.)

Trend to Air-Cooled Units

A sharp trend to air-cooled units is expected this year by most contractors, they said, explaining that local restrictions will not permit installations of straight water-cooled jobs any more.

Such restrictions, however, should also mean a greater number of systems with towers or evaporative condensers.

As for the makes of the Wilmington residential installations, nine different manufacturers are represented in the 252 jobs. Seven of these are old-line air conditioning and refrigeration firms while two are furnace manufacturers.

Between them, however, the two furnace manufacturers garnered

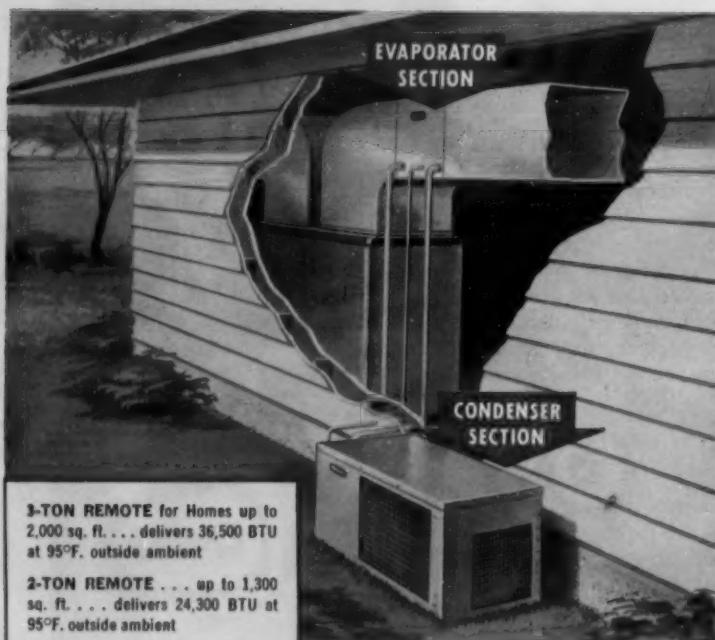
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You can recommend the *Remote MARVAIR* with complete confidence. It has the qualities that assure a 100% satisfactory job.

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For Every Home, Store and Office Need!

The *Remote Marvair* is available with horizontal-flow evaporator, with or without blower; and vertical-flow "A" type evaporator for installation below or above any warm-air furnace.

Water-cooled MARVAIRS include vertical type with or without plenum, for single-room cooler or with ducts for homes, stores or suites of offices; horizontal type with ducts, for any updraft or horizontal forced-air furnace.

The only complete line not restricted to franchised dealers. For more volume, more profit, go MARVAIR all the way!



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... attractive, leak-proof construction.

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... for trapping foreign matter and sludge.

④ Silica Gel (PA 400), finest dessicant known

• greater drying capacity . . . absorbs 100% acids in system
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⑤ Solder or Flare Fitting connections available.

KMP Moisture Magnets are available at leading wholesalers.

WRITE: inquiries are welcomed.

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Dryers • Accumulators • Accumulator Dryers • Strainers • Capillary Assemblies

Residential Air Conditioning

Residential Air Conditioning In Wilmington

Contractor	Total 1954	Existing Homes		New Homes		Air Cooled	Water Cooled	With Tower
		Owner	Builder					
A	95	3	90	2	...	95	...	...
B	75	9	19	47	...	75	19	...
C	24	...	24	...	...	24	18	...
D	20	10	10	...	20	...	...	...
E	15	5	10	...	1	14	4	...
F	6	6	...	...	6	...	...	...
G	6	2	4	...	2	4	4	...
H	4	4	...	...	4	...	...	...
I	4	4	...	...	...	4	4*	...
J	3	...	3	...	3	...	...	...
Total	252	43	160	49	36	216	49*	...

*Two were evaporative condensers.

(Concluded from preceding page)
only four of the 252 jobs, one having three, the second a single installation.

'Old-Line' Mfrs. Get Most Installations

The old-line refrigeration manufacturers got the lion's share of the installations with a third old-line firm being represented.

The run-down on the contractors themselves is as follows:

Contractor A (95 units) is a heating contractor. He installed units of two old-line air conditioning and refrigeration manufacturers. He does his own sheet metal work. Got into residential air conditioning "in a big way" back in 1953, installing a large project.

Contractor B (75 units) is a veteran air conditioning contractor representing an old-line refrigeration and air conditioning manufacturer. Sublets ductwork.

Contractor C (24 units) is a heating and sheet metal contractor. Does own ductwork. Installed units of three old-line air conditioning manufacturers and one furnace manufacturer.

Contractor D (20 units) is an air conditioning contractor. Represents an old-line air conditioning manufacturer. Does own sheet metal work.

Contractor E (15 units) is an air conditioning contractor and distributor. Represents old-line air conditioning manufacturer. Sublets ductwork.

Contractor F (six units) is an air conditioning and refrigeration contractor. Installed units of old-line air conditioning manufacturer. Sublets ductwork.



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Aspir-Jet, the new spray nozzle, increases efficiency of cooling towers by increasing water break-up and improving water distribution. This is accomplished by the Aspir-Jet unique design which atomizes the water with as little as one-half pound nozzle pressure. Formed of butylate plastic, Aspir-Jets last longer because they do not corrode. Thousands already in use are giving better cooling even with lower than normal pressures.

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SALESMEN: MOST TERRITORIES OPEN

Contractor G. (six units) is an air conditioning and refrigeration contractor. Installed units of old-line air conditioning manufacturer. Sublets ductwork.

Contractor H (four units) is an air conditioning contractor and distributor. Installed units of old-line air conditioning firm. Sublets ductwork.

Contractor I (four units) is an air conditioning contractor. Represents an old-line refrigeration and air conditioning manufacturer, but also installed one unit made by furnace firm. Sublets ductwork.

Contractor J (three units) is a heating contractor. Installed units of old-line air conditioning manufacturer, but also represents a furnace manufacturer. Does own ductwork.

Incidentally, it might be pointed out that, as in previous such surveys, numerous air conditioning and heating dealers were contacted in addition to those listed but reported no residential installations for 1954.

Gulf Air Conditioning Formed To Mfr., Sell In Jackson, Miss.

JACKSON, Miss.—Formation of Gulf Air Conditioning Co. here to manufacture and sell residential and commercial central air conditioning units was announced recently by Gerald McCarthy, who owns and operates the business.

McCarthy, who has just moved to Jackson from Wauwatosa, Wis., said, "We expect to aim directly at the residential market, with some commercial models included."

Production is scheduled to begin around the end of March. The firm is located at 140 Duncan St.

Air Conditioned Apt.

MIAMI, Fla.—The Venetian Isle, a swank new 45-unit apartment building located on Biscayne Island along the Venetian causeway, opened in January featuring individual air conditioning of each apartment, according to Architect Melvin Grossman.

G-E Home Heating, Cooling Names New Distributors

BLOOMFIELD, N. J.—Appointment of Weather, Inc., Tulsa, Okla., and Heat, Inc., Fitchburg, Mass., as distributors for G-E home heating and cooling products has been announced by General Electric Co.'s Home Heating & Cooling Dept.

The department also announced the appointment of Central Roofing & Supply Co., Miami Beach, Fla., as a retailer for these products.

Weather, Inc. will distribute the complete line of G-E residential furnaces, boilers, and central home cooling units in the Tulsa area. Jack N. Meyers is president.

Heat, Inc. will distribute the G-E line in the Massachusetts, Vermont, New Hampshire, and Maine area. Headquarters of the new firm is at 18 Lincoln St. in Fitchburg. Ernest E. Illig is president and Morier Harris is treasurer.



What is it? It's Electro-KLEAN... the new electronic home air filter that is 20 times more effective than ordinary filters! It literally pulls dust, dirt, soot, smoke and pollen from the air... takes most of the work out of house-cleaning... doubles the life of fine fabrics and rugs... makes dusting a once-a-week job!

Electro-KLEAN air is destined to an increasingly important role in home planning during the next few years. Make sure you are in on the ground floor... be ready to cash in on the swelling demand for super-clean air in the home!

Who's a prospect? To begin with, just about every home-owner in America... every woman who wants to cut down her housework... every man who wants to save money on cleaning bills. Doctors prescribe it for hay fever sufferers... architects and contractors recommend its installation for complete air conditioning... small shops, stores, offices and restaurants will be a ready market, too.

What about installation and servicing? Electro-KLEAN works directly with ordinary forced-air heating and air-conditioning systems. Installation is very simple, and can be done either by your own personnel or by any heating or air conditioning contractor. It rarely, if ever, requires any servicing or maintenance.

AAF

herman nelson

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MAIL COUPON TODAY

ELECTRO-KLEAN SALES DEPARTMENT, AMERICAN AIR FILTER CO., INC.
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Yes, I want all the facts on the great selling opportunity of Electro-KLEAN Home Air Filters.

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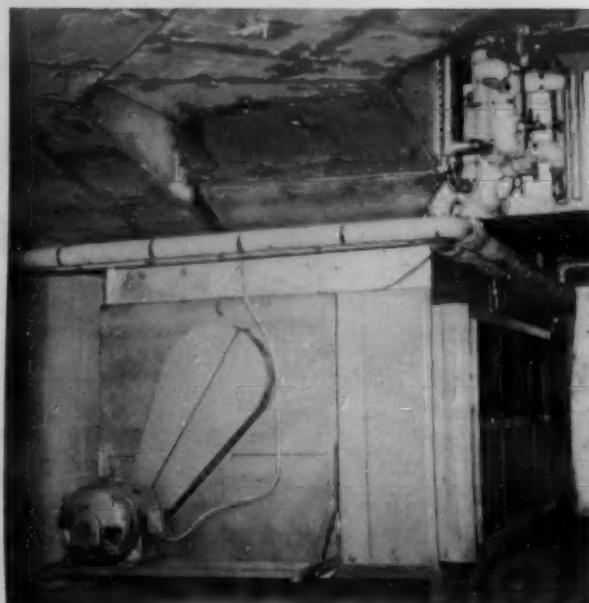
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American Air Filter COMPANY, INC.
LOUISVILLE 8, KENTUCKY



AIR CONDITIONING

A 18,500 c.f.m. centrifugal blower, designed and manufactured by Thermal Engineering in Houston, Texas, supplies conditioned air for the bank's new \$300,000 building in Houston. Two refrigerant coils are installed on the intake side of the blower. Conditioned air flows through four chutes from the exhaust side of the blower to four air conditioned areas. Thermostatic controlled hot-water heating coils are installed in each chute, between the blower and the conditioned area.



Drive-In Bank Customers Get Air Conditioning from Chute That's Directed at Windows

HOUSTON, Texas—University State Bank here has come up with an innovation: air conditioning for patrons using its drive-in facilities.

As an integral part of the bank's new \$300,000 building, air conditioning chutes of stainless steel were installed on the outside of each of the three drive-in teller cages.

Each chute extends outward and downward from the top of the

teller cages. The bottom of each chute is within 2 ft. of the open window of the bank customer's car. There is not a direct hose connection between the chute and the car.

The idea was conceived by L. Goldston, president of the bank, and the bank directors, according to Goldston. Equipment was installed by Bob Lay Co. of Houston.

Use of portable air conditioning units had been considered by the

STAINLESS STEEL CHUTE
over teller window directs 250 cfm. flow of conditioned air into cars of customers who use the University State Bank of Houston, Texas drive-in banking facilities.

bank's directors, Goldston said. However, it was decided not to use the portable units because there was the possibility that some customers would hesitate too long at the drive-in window while waiting until the inside of their cars were either warmed or cooled, depending on the season.

The deciding thought was: "What would happen and how long would the drive-in facilities be blocked when a car occupied by six youngsters and the customer stopped at the teller's window and hesitated until each youngster was cooled?"

STEEL CHUTES DIRECT AIR AT CUSTOMERS

Use of the steel chutes, directing the temperature-conditioned air towards the customer, but not inside his car, appeared to be more feasible and practical.

Bob Lay, who supervised the installation of the air conditioning system, pointed out that a 250 c.f.m. centrifugal blower, supplying approximately 1 ton of air conditioning, forces the conditioned air out of the stainless steel chutes and towards the bank customer.

The refrigerant for the cooling coil is furnished by two 25-ton Chrysler Airtemp radial compressors. The refrigerating units may be used separately, or both may be cut in when needed. They are thermostatically controlled. 000 B.t.u./hr.

Hot water for the heating coil

is furnished by a model 12-B-16 United States Radiator Corp. boiler that has a 742,000 B.t.u./hr. input and an A.G.A. output of 594-

BANK DIVIDED INTO FOUR AREAS

Air conditioning-wise, the new bank building is divided into four areas. There is the general lobby area; an area utilized for executive offices; an upstairs area for a coffee shop, a community meeting room, a board room, and President Goldston's office; and the fourth area for the bank's accounting department and the three drive-in teller cages.

Refrigerant from the 25-ton compressors is supplied to two coils located, one above the other, on the intake side of a centrifugal blower. Thermal Engineering Corp. in Houston designed and manufactured the 18,500 c.f.m. blower.

On the exhaust side of the blower, an air transfer system of four ducts directs air to the air conditioned areas. The flow of refrigerant through each cooling coil is controlled by a thermostat located in front of the cooling coils.

HEATING COIL IN EACH UNIT

A heating coil is located in each of the four air ducts, between the blower and the area to be cooled. The flow of hot water through each heating coil is controlled by thermostats located in each air conditioning area.

According to Lay, when the tem-

perature in an area becomes too cool, the thermostat in that area actuates the heating unit. The cool air from the blower is warmed as it passes between the heater coils.

Conditioned air for each of the three drive-in teller cages is furnished through branches off the air duct to the accounting department area.

Each of the three 250 c.f.m. centrifugal fans that furnish air conditioning to the outside ducts is located in the ceiling of the teller cages.

The intake for each fan is through a grill also in the ceiling of each teller cage.

Observations made during the first day that air conditioned drive-in banking was in operation indicated that the bank's customers thoroughly enjoyed the comfortable convenience which the firm added to the system of banking by car.

Dallas' King's Quarters Are Fit for a King

DALLAS—King's Quarter, a \$1,000,000 apartment development with a new concept in design, held its formal opening recently.

The development on King's Rd. has 115 apartments in 10 buildings, each done in a different design.

The apartments are air conditioned with Chrysler Airtemp equipment installed by Matthews Engineering Co. here.

LESS THAN 2 TEASPOONS



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Quality Specifications	
Moisture wt. %, max.	0.0010
Chlorides	none
High boiling impurities—vol. %, max.	0.05
Non-condensable gases (gases insoluble in perchloro-ethylene)—vol. % in vapor phase, max.	5.0
Boiling pt. at 760 mm. Hg. °F	-41.4
Boiling range °F (to 85% pt.), max.	0.9

genetron 12—WHITE LABEL DICHLORODIFLUOROMETHANE

Quality Specifications	
Moisture wt. %, max.	0.0010
Chlorides	none
High boiling impurities—vol. %, max.	0.05
Non-condensable gases (gases insoluble in perchloro-ethylene)—vol. % in vapor phase, max.	1.5
Boiling pt. at 760 mm. Hg. °F max.	-21.4
Boiling range °F (to 85% pt.), max.	0.5

genetron 11—ORANGE LABEL TRICHLOROMONOFLUOROMETHANE

Quality Specifications	
Moisture wt. %, max.	0.0015
Chlorides	none
High boiling impurities—vol. %, max.	0.05
Boiling point at 760 mm. Hg. °F	74.7
Boiling range °F (to 85% pt.), max.	0.5

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TEMPERATURE RECORDERS

**Separate Meter Gets
Cost Data for Texas
Conditioning Dealer**

HOUSTON, Texas—One of the chief objections to home air conditioning that prospective buyers have is anticipated high cost of operation, T. E. Brazewell, developer of Berkshire Village in nearby Pasadena, reports.

Brazewell has a model air conditioned home in Berkshire Village priced to sell at about \$12,400.

"People are skeptical about maintenance costs," Brazewell said. "They seem to think the monthly cost of operation will be too much for their budgets."

So Brazewell has worked out an answer to that objection. One owner of an air conditioned home in the village had his air conditioner metered separately from the other household utilities in order to get an accurate check on costs.

Owner of the home is James W. Kerr of Straus-Frank Co., Carrier distributor here. Kerr has made his utility bills and cost figures available to any one who would like to see them.

"Our figures show an average monthly cost of little more than \$8," Brazewell said. "The peak month of August was about \$15."

In mentioning these figures, Brazewell noted that sub-tropical Houston experiences five-month long humid summers.

**Hulse Heads Merchandising
For U.S. Machine Div.
Of Stewart-Warner Corp.**

LEBANON, Ind.—Appointment of Robert C. Hulse as merchandising manager, a post created by consolidation of advertising, sales promotion, and publicity departments, has been announced by Claude A. Potts, general sales manager of Stewart-Warner Corp.'s U. S. Machine Div. here.

With the firm for 12 years, the last eight as sales promotion manager, Hulse will coordinate and direct an expanded program for the merchandising of Winkler heating and cooling equipment, and Stewart-Warner and "Saf-Aire" wall heaters. James M. Darnell has been named to fill Hulse's former post.

Under the new setup, the merchandising committee will consist of Walter E. Blake, sales manager of dealer sales; Ray F. DeVaney, sales manager of jobber sales; and Potts and Hulse.

Walter R. Leander and Gus Wolf have been named as sales supervisors.

**Sales Tool Helps
Prospect Visualize
Benefits of Having
Residential System**

CINCINNATI—Selling residential air conditioning can be a difficult type of salesmanship because one is trying to sell "comfort," which for all practical purposes is chiefly just a state of mind—an almost purely subjective sensation.

True, to achieve that state of "comfort" certain mechanical equipment is necessary, but the prospect is not primarily interested in the equipment itself—merely the results.

So reasons Harry Shelby, veteran specialty salesman who now directs residential air conditioning activities for Cincinnati Air Conditioning Co., Carrier distributor here.

**ATTRACTS ATTENTION,
HELPS SELLING**

To overcome that obstacle Shelby has devised a sales tool that not only serves as an attention-getter but also lets both the salesman and prospect readily visualize the results obtainable with a residential air conditioning installation.

Shelby mounted a Carrier "Weathermaker" thermostat-remote control on a board suitably

SPECIALTY SELLING METHODS



"TOOL" devised by Harry Shelby helps sell prospects on residential air conditioning.

painted and lettered.

With this "tool," which can be easily carried around, the salesman can focus the prospect's attention on the results obtainable with air conditioning instead of just talking about the equipment, Shelby believes.

Cincinnati Air Conditioning Co. it should be pointed out, operates as a wholesale distributor of the Carrier residential line with four retail dealers. Shelby does no direct selling himself.

But besides guiding the activities of the dealers, he does "promote" the idea of air conditioning (with emphasis on Carrier, of course) among speculative builders with the aim of lining up sales for the firm's dealer organization.

SALES TOOL DESCRIBED

As can be seen in the accompanying photograph, the "Weathermaker" control is mounted near the top of the board.

"Finger Tip Climate" and "Year 'Round Control" are phrases lettered on the board in fairly

large type which sum up the main sales message Shelby is trying to get across.

Along one side of the thermostat are the words, "Set the Thermostat," and on the other side, lettering identifies the three toggle switches of the control as (1) "On, Off," (2) "Cool in Summer, Heat in Winter," (3) "Fan for Ventilation, Automatic."

Lettering below the thermostat points out that residential air conditioning means "A New Kind of Comfort, A New Kind of Convenience, A New Joy in Living," and adds "Just Flip a Switch from Heat to Cool. Set the Temperature You Prefer."

While the main purpose of this sales "tool" is to demonstrate the idea of obtaining comfort with the flip of a switch, its function as an attention-getter cannot be overlooked, Shelby emphasizes.

Shelby received his early sales training with National Cash Register, a firm that pioneered and developed to a high degree the art of specialty selling.

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Actually, it takes the most delicate and accurate scientific apparatus to measure moisture in "Genetrons," for the content is so infinitely small that it must be expressed in parts per million.

For example, "Genetron" 12-White Label—and "Genetron" 141-Green Label—are so dry they contain less than 10 parts of water per million parts of refrigerant. That's moisture equal to only one-thousandth of one per cent (0.001%).

And, the overall purity of "Genetron" Super-Dry Refrigerants is equally good,

for they are manufactured to meet quality standards which are in many respects more rigid than those for the purest research chemicals.

Look at the stringent manufacturing specifications listed here. See how low "Genetrons" also are in non-condensable gases and low boiling impurities. And, remember that the quality of current production consistently surpasses even these specifications.

It's easy to see why so many leading manufacturers have now chosen "Genetron" Super-Dry Refrigerants as the original charge for their equipment. Their tests have proved "Genetrons" meet every requirement for reliable refrigerants.

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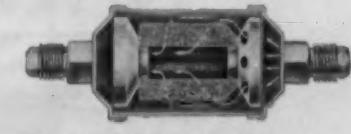
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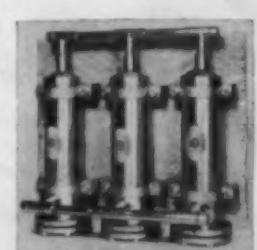
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How To Reduce Residential Air Conditioning Noises

PHILADELPHIA — How can noise in residential systems be reduced?

Some suggestions were offered by W. S. Young, Jr., and R. W. Farris of Owens-Corning Fiberglas Corp. at the Air Conditioner Conference held during the 50th annual meeting of the American Society of Refrigerating Engineers here.

"It has only been in recent years that any significant emphasis has been placed on the acoustical design of systems carrying heated or conditioned air," Young said. "This is due largely to the very rapid growth and acceptance of air conditioning systems which has just occurred."

"Air conditioning is now so popular that today very few commercial buildings are designed without it and the increase in the number of residential installations can be noted daily, not only in the south, but in our northern sections as well."

"Most technical aspects of air conditioning design have been standardized to the degree that it is possible to purchase equipment to provide the heating and cooling capacity and air delivery required to meet any condition. The problems of thermal and condensation control have also been solidified to the point where the solutions are almost routine."

"However, one phase of design, practical sound control correction, has been somewhat limited to special commercial installations. We will attempt, in this paper, to provide the necessary basic information and design criteria by which successful correction of noise in residential systems may be accomplished by practical means."

System Produces Some Noises And Transmits Others

"The basic problem we face, of course, is to reduce the noise created by air conditioning systems in the home to the point where it is not objectionable. The noise is caused by moving parts in the pumps, compressors, fans, etc.; air turbulence or eddying noises in the system itself; air noise at the grilles or room outlets; and noise generated outside the system but transmitted through it," Young explained.

"The ambient noise level in homes is naturally much lower than that found in commercial buildings such as stores and offices, and as such, often times requires greater noise reduction. In addition, the space limitations are more severe and the budgets tighter."

"These factors complicate the problem slightly but the know-how, products, and equipment available, the solutions to all problems can

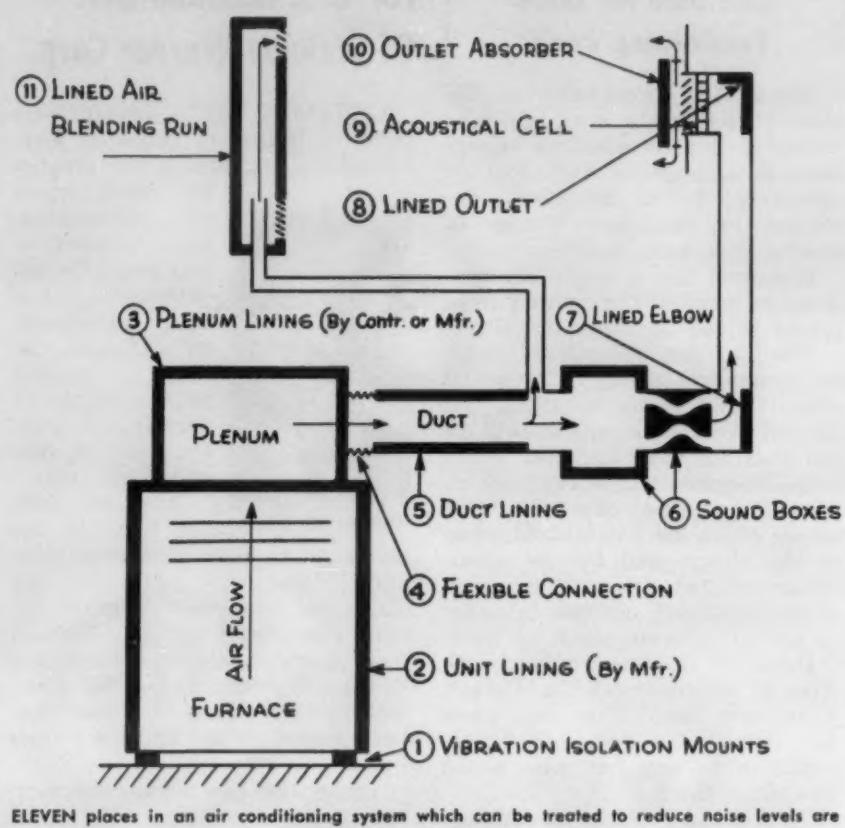
be worked out both effectively and economically," he declared.

"In most residences today the average over-all ambient weighted noise levels are about 35 to 45 decibels. Certain areas such as bedrooms may be lower, whereas playrooms, laundryrooms, or home workshops will be higher. Commercial conditioning equipment today varies from measured levels of 40 to 80 db. at the source."

"Thus it may be necessary to get reductions in the order of 10 to 50 db. in the system. This is based on a rule of thumb that requires a noise entering a room be at least 5 db. lower than the average ambient level to prevent its being noticeable. How this can be done follows."

Noise Can Be Controlled At Source

"The best place to control noise is at its source," Young suggested. "This approach is constantly being taken by the manufacturers of the varied units and their progress along these lines has been excellent. They have changed fan blade sizes, shapes, and speeds to reduce the noise at this point. They are utilizing vibration isolation materials and techniques to reduce the transmission of pump, compressor, motor, and fan noise to larger radiating surfaces. The use



ELEVEN places in an air conditioning system which can be treated to reduce noise levels are shown in this diagram.

of gasketing materials and panel damping has also provided sizeable reductions as has the use of sound absorbing materials for lining the equipment.

"There is still, however, room for improvement and it is coming daily. One approach which is being investigated is the use of molded insulation housings having a high degree of damping and absorption which minimize air-borne sound and structurally-borne vibration. The inclusion of the 'sales package' of flexible connectors between the unit and duct system may soon be standard."

"It is also felt that each manufacturer should rate his equipment in terms of generated noise levels in decibels. Preferably this rating should be at specific frequencies, octave bands, or the fundamental of blade frequency, but at least by over-all noise level."

"This information in the hands of the contractor or mechanical engineer will make his task much simpler and permit results which will be more satisfactory and more easily calculated and attained," Young said.

Location of Unit Can Help Solve Problem

"The achievement of satisfactory room noise levels can be greatly aided by proper location of the unit. It should be placed away from the quietest areas, with the most logical locations being in the basement, attached garage, utility room, or attic. Where practical, 'buffer' rooms (where the noise levels are not as critical) should be located between the source and 'quiet' areas."

"Assuming the unit has been located properly in the residence, further control can then only be achieved in the duct system or by proper installation techniques. The control here lies in the hands of the mechanical engineer or contractor. It is out of the hands of the manufacturer and architect."

"Rectangular plenums may best be lined with a rigid-type insulation while flexible blanket-type insulations may be most suitable for use in plenums having curved surfaces. For effective treatment, the plenum area should be at least 10 times greater than that of the fan discharge."

"There is a natural reduction of
(Concluded on next page)

Proper Mounting Vital

"Starting at the unit, the first consideration may be vibration isolation. The unit itself should be anchored to a massive part of the structure, such as masonry units, not to partition walls or resilient floors which may act as resonators and amplify the sound."

"Where units must be mounted so that the vibration may be readily transmitted and amplified, vibration mounts of commercially available felts and rubber should be used. The location of equipment on these mounts should be engineered to prevent amplification of the vibration," Young suggested.

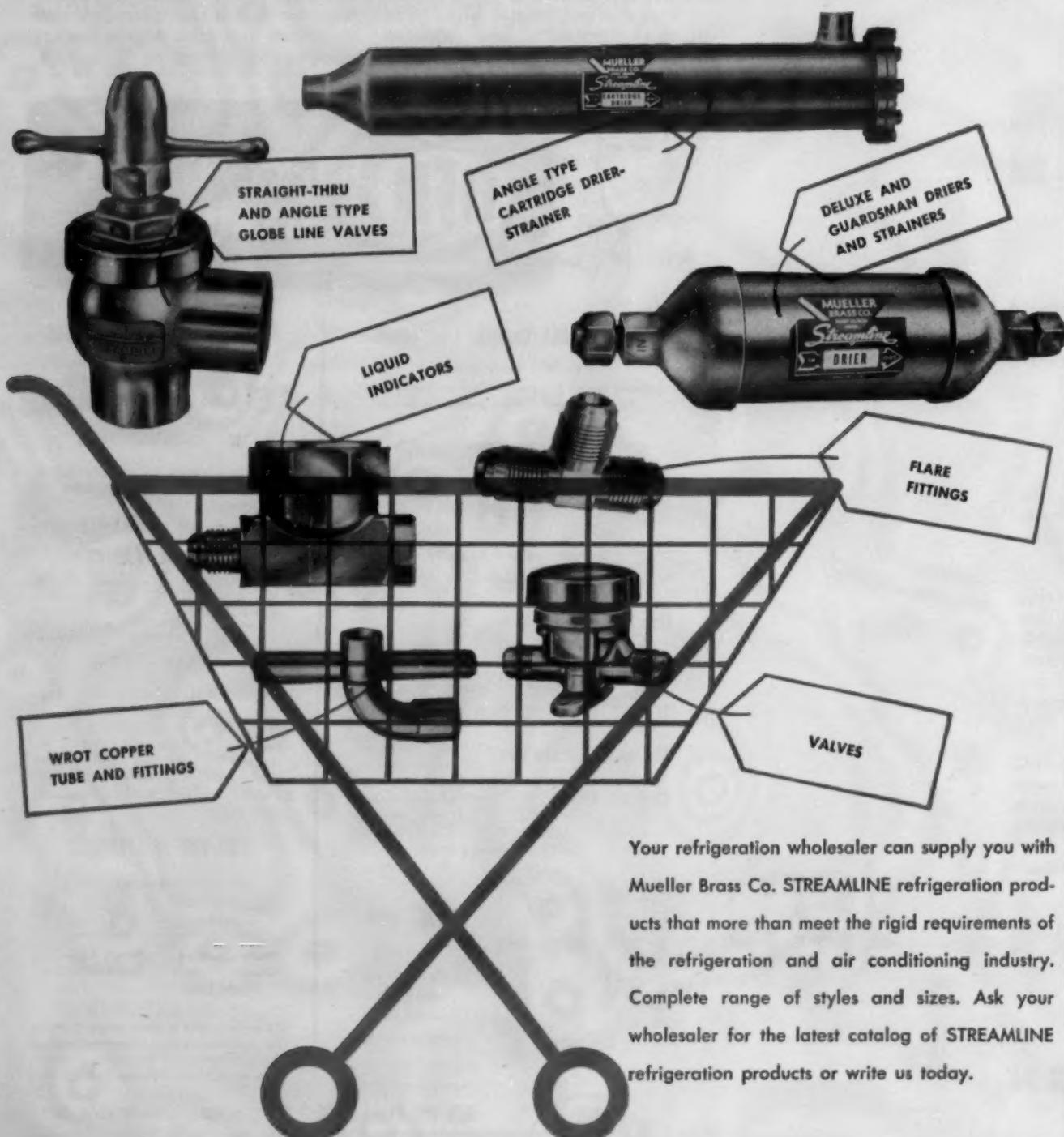
"Where through transmission paths along the duct walls are a

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Table 1—Sound Absorption by Duct Lining Insulations

Material	Thickness	Mtg.	Sound Absorption Coefficients							NRC
			125	250	500	1000	2000	4000	NRC	
Fiberglas Coated	5/8"	6	.11	.46	.50	.68	.77	.78	.80	.60
Duct Insulation	1"	6	.13	.46	.70	.85	.85	.80	.70	
Fiberglas Flexible	1/2"	6	.16	.46	.46	.74	.83	.80	.60	
Duct Liner	1"	6	.26	.56	.70	.93	.91	.84	.80	
Q-T Duct Liner	1/2"	6	.04	.36	.38	.76	.80	.85	.60	
Airacoustic	1/2"	6	.37	.47	.74	.88	.86	.82	.75	
	1"	6	.11	.42	.43	.77	.84	.82	.60	
	1"	6	.17	.49	.76	.89	.94	.85	.75	

Table 2—Sound Attenuation by Duct Sound Traps

Type of Cell	Length	Attenuation, in decibels						Avg.
		125	250	500	1000	2000	4000	
Fibrous Glass	2"	1.0	0.2	0.2	4.0	8.2	...	3.1
Egg-crate Grille	4"	1.5	0.2	0.5	6.6	14.1	...	5.9
Aircoustat, Type JA	24"	7.5	11.2	24.0	30.5	33.5	33.5	24.8

(Concluded from preceding page) sound in passing through a straight run of duct which is a function of length, shape, and size. However, except for exceptionally long runs, this is negligible and may be disregarded," Young explained.

"Due to reflective interference, some attenuation takes place at elbows and duct transformations. These reductions will vary from about 1 db. for a large elbow to 3 db. for small ones. Transformations, or changes in duct cross-sectional area, can add an equivalent amount of reduction in relation to the ratio of area change.

The attenuation due to the above factors is small and often times not sufficient. The lining of the duct system with sound absorbing materials is an effective method of obtaining further reductions. Rectangular ducts may be lined with rigid insulations attached in the same manner as previously mentioned for plenums.

Small Ducts Prevent Use of Linings

"Small circular ducts for higher velocity systems are becoming more and more popular for domestic heating installations and these systems are being converted to handle conditioned air. The small diameters of these ducts prevent the use of acoustical linings and other provisions must be made to handle noise reduction requirements.

"One method would be to insert a section of larger lined rectangular duct where space permits which in effect would be a lined plenum. In certain basement installations, for example, where there are long horizontal runs prior to branch outlets to rooms above, this treatment could be installed to absorb the air-borne noise of the unit and possibly preclude treatment of individual runs. This treatment offers a relatively accessible correction at low cost," he said.

Sound Box May Be Used

"Another method would be to introduce a sound box in this accessible run of duct prior to the branch outlets. Sound boxes are short lengths of duct containing engineered sound absorption units so designed as to provide maximum noise reduction with a minimum of air flow resistance and pressure drop. The amount of absorption due to these units may be as high as 10 db. per foot for specific frequencies.

"Sound boxes are generally more than adequate for residential noise reduction and, with proper consideration for pressure drop across the unit, can fit nearly all systems.

"The final areas of the duct system which can be treated acoustically are the wall duct sections and room outlets. In certain cases it may be possible to enlarge the duct and line it with a board-type material. This treatment takes advantage of the noise reductions gained by transformation, decreased air flow, and sound absorption of the lining.

"A further advantage which may be realized by enlarging and insulating the stock head leading to the register is that this type of correction will tend to minimize the transmission of air-borne sound from room to room through the system. Elimination of this



AIR CONDITIONING

"Sound attenuation can be achieved even at the grille. An appreciable reduction in duct noise is gained by the expansion of the air as it enters the room. Additional attenuation may be obtained by using sound absorbing cells or sound traps behind the grille or outlet absorbers in the room.

"These treatments are primarily effective in reducing higher frequency sounds such as are caused by air passage and turbulence and for the control of 'cross-talk' from room to room. One type of cell consists of 1/2-in. thick rigid insulation pre-fabricated into an 'egg-crate' unit 2 in. deep which can be further job-fabricated to fit any size duct.

Precautions To Follow

"As with any field control program, there are certain precautions which, if followed, will assure the owner of a highly satisfactory system. A few of these precautions are as follows:

"A. Select site and locations of runs to minimize amount of noise control needed.

"B. In unlined runs of cooling systems, provide proper external insulation and condensation control. This usually means that the insulation be covered with a vapor barrier having a vapor permeability of less than 0.5 perms. Foils, duplex papers, and certain vapor barrier paints are acceptable for this use.

Sound Control Treatments Decrease Air Supply

"C. All sound control treatments will result in some decrease in the air supply because the friction factor of the insulation is

greater than that of the unlined duct. Knowing the friction factors of duct lining materials or the air flow resistance of acoustical cells, the duct systems may be easily designed to handle the change. Generally, it will mean slightly larger cross-sections or in cases where the duct sizes are limited, larger fans or units with greater air capacities may be considered.

Informed User Will Be Better Satisfied

"One final word of caution. Whatever the method or methods selected for noise control in the system, be sure your client or customer understands what he will be receiving. Having paid for and received a quiet operating system designed for use under normal home ambient noise levels, he cannot expect the system to be silent at nights when the ambient level is unusually quiet. Likewise, under extreme noise conditions such as parties, unless specifically anticipated, the sound will carry.

"If these conditions are understood beforehand everyone will be happy—the contractor, the mechanical engineer, the system manufacturer, and most important, the customer," Young declared.



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The MIAMI STORY:

Room Unit Distributor Sells Direct to Consumer and Makes Its Dealers Like It—So Much So They Help Get Bids and Profit, Too

By George M. Hanning

CORAL GABLES, Fla.—It is not unusual to find a room air conditioner distributor who sells direct to the consumer.

But it is unusual to find one whose dealers aren't complaining about it. In fact, they are helping him do it!

Lowry Electric Co., a comparative newcomer to the air conditioning field, is such a distributor.

George F. Klein, sales manager, explains the apparently paradoxical situation this way.

Down here, says he, there is a big market for room air conditioners in the thousands of hotels, motels, and tourist attractions that must offer cooling in order to attract any business.

Because they buy a number of units at once and because they are always looking for the best price, they won't even consider going to a dealer for them. They look to the distributor or even the manufacturer.

Dealer Can't Compete

We have found, he continued, that a dealer trying to compete against distributors invariably lost the order. They couldn't meet the distributor's price. We decided that despite this situation, we should get our share of the business.

So we informed our dealers that we would let them get all the business they could get without competing against them. But if it became apparent that they could not get the order, we would bid on it ourselves.

On every order we win in this fashion, we put into a dealer's kitty a minimum of \$5 per unit. Often it is more than that.

Then at the end of the season, we divide up the kitty among the dealers that are still with us at that time, pro-rating the amount each dealer gets according to the volume of business he did on our line during the year.

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♦ Lowry's business now divides itself between 60% heat pumps and 40% straight air conditioning. He said that about half of the firm's commercial customers are buying heat pumps and nearly all of the residential customers purchase this equipment. The industrial market for heat pumps is also opening up fast.

To illustrate the ready acceptance of heat pumps in this area, he recalled that his first order was for 10 heat pumps in a new deluxe home development. Seven of the homes were sold for cash before they were even completed, Klein declared. He said the builder was amazed and said he never dreamed that such a thing could happen.

"One strong factor in the great acceptance for heat pumps here,"

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FRANCHISED EARLY THIS YEAR to distribute the Typhoon "Prop-R-Temp" heat pump in southeastern Florida, officials of Lowry Electric pose happily with Typhoon "brass." Left to right are: Don Petrone, Typhoon president; George Klein, Lowry sales manager; J. F. Dailey, treasurer of Prop-R-Temp Corp. of Florida; and James R. Lowry, Lowry president and general manager.

(Concluded from preceding page) ice trucks with two-way radio to even further improve efficiency.

Another important asset is having all the necessary trades to make complete air conditioning installation in his own firm. This eliminates any jurisdictional problems and gives the management complete control over all phases of the installation.

Klein said that his company is very active in promoting the products it distributes. Newspaper advertising is the most effective, he declared, though all forms of advertising contribute something. The best newspaper advertisement

he has ever had was an editorial story on his company that appeared in the business section of a Miami newspaper.

TV Has Greatest Pulling Power

Television is the most powerful advertising medium, but also the most expensive. Klein believes that he gets extra punch out of his air conditioning advertising by sponsoring a weather bureau telecast. Everyone is interested in the weather and is then in the mood to listen to a pitch on air conditioning, he said.

Direct mail and telephone book advertising are other forms used successfully by the company.

Klein commented that there are many more reasons for buying heat pumps than simple comfort. Taking suggestions from customers who have commented on their purchases, he has compiled a list of 38 such reasons for use by his salesmen. Many of them are closely related and almost repetitious, but here are some advantages that differ considerably:

Quietness — seals off outside noises.

Protection — window may be kept closed to guard against sudden rains.

Reduce mildew and mold damage.

Cleanliness — filters out dust, dirt, and pollen.

Healthful — less danger of sickness from drafts, dampness, etc.

Protection against damage to furnishings, art objects, etc.

Clothing retains its laundered look longer.

Protection against burglaries, smoke, soot, and odor.

Protection against hot surfaces of furnaces or registers in living area.

Protection against fire from sparks carried to roof tops.

Protection against rust damage.

Protection against damage to radio and television receivers due to high relative humidity.

Protection against insects.

Increase life expectancy of property.

Less redecorating expense. Food spoilage reduced. Protection for pets against sudden temperature changes.

More compatible home life for members of the family.

Lower fire insurance rates.

Increases efficiency of servants.

RTA Re-Elects Carter At N. C. Convention

WINSTON-SALEM, N. C.—

Members of the Refrigeration Trade Association of America re-elected L. L. Carter, Sr. of Winston-Salem as president during the group's two-day third annual convention held recently at the Hotel Robert E. Lee.

Also re-elected were C. W. Phillips, Washington, D. C., executive secretary; P. H. Packett, Baltimore, first vice president; J. B. Broughton, Raleigh, N. C., second vice president and state counsel; Leo Wolf, Baltimore, treasurer; N. F. Crater, Sr., Winston-Salem, chaplain; and C. B. Collins, Washington, general counsel.

J. D. Detter, Fayetteville, N. C., was elected secretary and George Brickle, Wilmington, was chosen sergeant-at-arms. Detter replaces Ray L. Dillars, Lancaster, Pa., and Brickle succeeds Franklin Attkinson, New York City.

Jack Orner, Philadelphia, was elected to the board of directors to replace J. V. Turner of the same city. Re-elected directors were Carter; Crater; Henry Van Langen, Philadelphia; George Nash, Richmond, Va.; A. C. Huber, Baltimore; M. G. Horowitz, Silver Spring, Md.; Paul Renaud, Montgomery, Ala.; and S. Pollock, Boston.

Plans for seeking enactment of industry licensing laws were discussed at the convention. J. B. Broughton reported that a bill which would require licenses for refrigeration contractors in North Carolina will be introduced in the state General Assembly.

It was decided to hold the 1956 national convention March 4-6 at the Willard hotel in Washington, D. C.

Pacent Named Emerson Mfg. Vice President

NEW YORK CITY—Louis G. Pacent, Jr., works manager of Emerson Radio and Phonograph Corp. since January, has been elected vice president in charge of manufacturing, it was announced by Benjamin Abrams, president.

Until his appointment as works manager of Emerson, Pacent had been vice president of Quiet Heat Mfg. Corp.

O. A. Sutton Reports Record Net Sales of \$38 Million for '54

WICHITA, Kan.—The O. A. Sutton Corp., manufacturer of Vornado air conditioners and air circulating fans, recently reported record net sales of \$38,018,762 in the fiscal year ended Nov. 30, 1954, up nearly 63% from the preceding year's \$23,352,217.

Net earnings after taxes were at a new high, totaling \$1,471,277 as against \$440,335 in the 1953 fiscal year and \$546,000 in 1952, the previous record. Earnings before taxes were \$3,170,277, compared with \$1,476,335 the year before, and Federal and state tax provisions were \$1,699,000 as compared with \$1,036,000.

After preferred dividend requirements of \$41,750, the latest year's net earnings were equal to \$1.30 a share as against 40 cents a share the preceding year.

In his report to shareholders, O. A. Sutton, president, said that about 45% of the company's 1954 business was in Vornado air conditioners and electric air circulators, about 43% in air conditioners manufactured for private brand sale, and the balance principally in jettison fuel tanks for the U. S. Air Force.

"We are assured of continued private brand business through 1955 and 1956, and we are presently negotiating follow-on contracts to continue the air force jettison tank contracts which expire shortly," he said.

The room air conditioner line is being expanded with a new case-ment window unit, a 2-ton window unit, and a "reverse cycle" room conditioner which combines both cooling and heating functions.

The company also is expanding into commercial air conditioning with 2-ton and 3-ton package units for low cost installation without plumbing in homes that have forced air heating. In addition, the company has started producing its own fractional horsepower electric motors, both for use in its own products and for outside sale.

MARSH Instruments

THE SERVICEMAN LINE of Testing Gauges, Testing Thermometers, Timers, etc.

PRESSURE GAUGES and Dial Thermometers for all services.

MARSH-ELECTRIMATIC, Water Regulating Valves, Solenoid Valves.

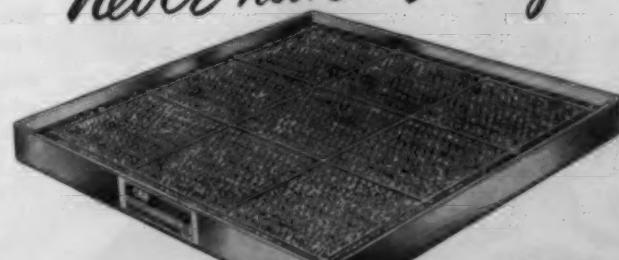
MARSH INSTRUMENT COMPANY

Sales Affiliates of Jos. P. Marsh Corporation

Dept. D, Skokie, Ill.

YOUR CUSTOMERS WILL

"Never have it so good"



EZKLEEN WASHABLE AIR FILTERS

... and you, too. For washable, aluminum E Z Kleen air filters will reduce your inventory problems and service costs ... fit perfectly into any filter service program. And your customers will benefit from the best in efficient air filtration, plus the economy of washable air filters. E Z Kleens retail as low as \$1.33. Wide range of sizes 1/2", 1" and 2" thickness.



... PRODUCTS OF RESEARCH



RESEARCH PRODUCTS CORP.
Dept. 20, Madison, Wis.

your products will consistently operate with maximum efficiency. It means the Delco Electric Motors that power your products will deliver topnotch service over longer periods of time ... at less cost for maintenance.

You can be just as sure of another kind of dependability, too, whenever you work with

Delco . . . dependability of delivery. Volume producers know Delco will deliver on time. Whatever the size of your order, wherever and whenever you want them, your motors will be there on schedule. And wherever your products go, throughout the world, Delco parts and Delco service facilities are always nearby.



DELCO Electric MOTORS

DELCO PRODUCTS, DIVISION OF GENERAL MOTORS, DAYTON, OHIO

Proved best by Performance!

What's New

When requesting further information on new products, please use "Information Center" form.

Penn Thermostat for Year-Round Residential System



KEY NO. E-330

GOSHEN, Ind.—A new combination heating and cooling thermostat, designed for year-round control of residential air conditioning systems, has been announced by R. H. Luscombe, general sales manager, Penn Controls, Inc.

Features of the new control, designated the Penn Type 880, are its compact size (2½ in. wide by 2½ in. high by 4½ in. long), horizontal trimness of line, and its "neutral-colored" plastic cover which harmonizes with any color scheme, according to the company.

"Other important features include Penn's exclusive cold anticipation to assure close control of summer temperature and humidity,

and heat anticipation for control of winter temperatures with ½° of selected level," the manufacturer stated.

"Complete segregation of heating and cooling circuits is provided, without special accessories, to comply with National Electrical Code Class 2 wiring requirements.

"Separable mounting plate permits wiring of the mounting plate on the wall or standard outlet box before thermostat is installed. Thermostat then 'plugs in' to the mounting plate. It is not necessary to remove thermostat cover during installation.

"Fingertip selection of system and fan functions conveniently located on front of control can be had in choice of one manual switch for system and one for fan, or single manual switch combining both.

"Changeover from heating to cooling may be manual, automatic only, or, combination.

The thermostat is available in seven standard models for cooling only, heating and single stage cooling, or heating and two-stage cooling.



Rotisserie Cooks with 8

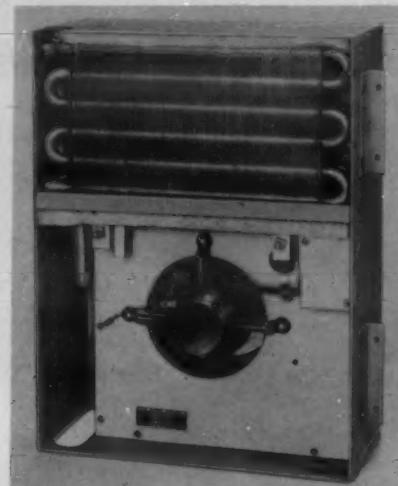
250-Watt Infrared Lamps

KEY NO. E-331

SEATTLE—Latest addition to the Oven-King line of restaurant and baking equipment is the new Infra-Red Rotisserie for visual cooking of meat and fowl.

Engineered for efficient operation, the Rotisserie is designed to meet the demands of restaurants which desire infrared cooking at an economical operation.

Heat is supplied by eight 250-watt infrared lamps that are wired to individual switches for exacting control. Lamps are mounted on adjustable heads to better direct the heat at the roast or fowl. A heavy-duty air-cooled gear-head motor drives the spit which can be adjusted. The frame consists of one piece heavy gauge stainless steel base and lamp support.



Air-Rad Offers Hot Water Heat, Summer Cooling

KEY NO. E-332

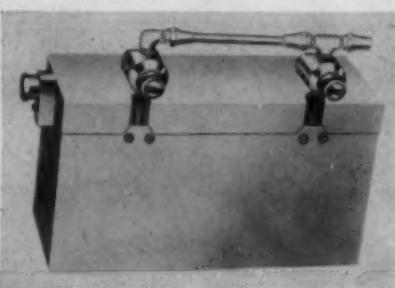
LANCASTER, Pa.—A new, improved model of the Penn "Air-rad," a forced water heating-cooling unit, has been announced by Penn Boiler and Burner Mfg. Corp., here.

The Air-rad offers hot water heat plus summer air conditioning from the same radiator unit without any changes in piping. Air-rads operate equally well on one-pipe or two-pipe systems, the company said. A chilling unit need not be included with the original installation but may be added later.

With the Penn Air-rad system, zoned or individual room temperature control is provided. Fractional cooling is also possible.

Penn Air-rads fit between standard studs and are adjustable for varying wall depths. Fittings are adaptable for ¼-in. or ½-in. tubing and are staggered for easy installation.

Tie-in lines can be soldered before installation.



Humidifier Operated By Compressed Air

KEY NO. E-333

BELLWOOD, Ill.—Spraying Systems Co. has announced a new humidifier for use in rooms up to about 12,000 cu. ft. in size.

The No. 6110 consists of two ¼-JH humidifying nozzles and supply tank with float valve. Accessory equipment supplied as needed to complete installation includes humidistat, air filter, air pressure regulator, and solenoid valve.

Operation is by compressed air . . . to siphon water from the supply tank and for projection and atomization of the spray.



Sub-Zero Introduces New Glass Door Cabinets

KEY NO. E-334

MADISON, Wis.—Sub-zero Freezer Co., Inc. has revealed to its distributors and dealers a new line of glass door merchandising cabinets "consisting of sizes to meet every merchandising need for displaying and selling packaged ice cream and frozen foods."

The new cabinets feature waist to eye level displays and provide large capacity in less than one square yard of floor space, according to the company. For example, model 26-G holds 1,157 pint packages of ice cream or 1,068 packages of frozen food.

Glass door models are available in sizes ranging from 16-cu. ft. to 32-cu. ft. capacities.

Features are all-aluminum exterior finished in white baked-on enamel. Interiors are embossed aluminum.

"The clear vision Thermopane' door is equipped with four pane Thermopane glass having a built-in heat wire to minimize condensation and fogging of the glass."

"Top, bottom, and all shelves are generously coiled with copper tubing for greater refrigerating efficiency," the firm said.

Tecumseh hermetically-sealed condensing units with a 5-year warranty are used. Each unit is equipped with service valves.



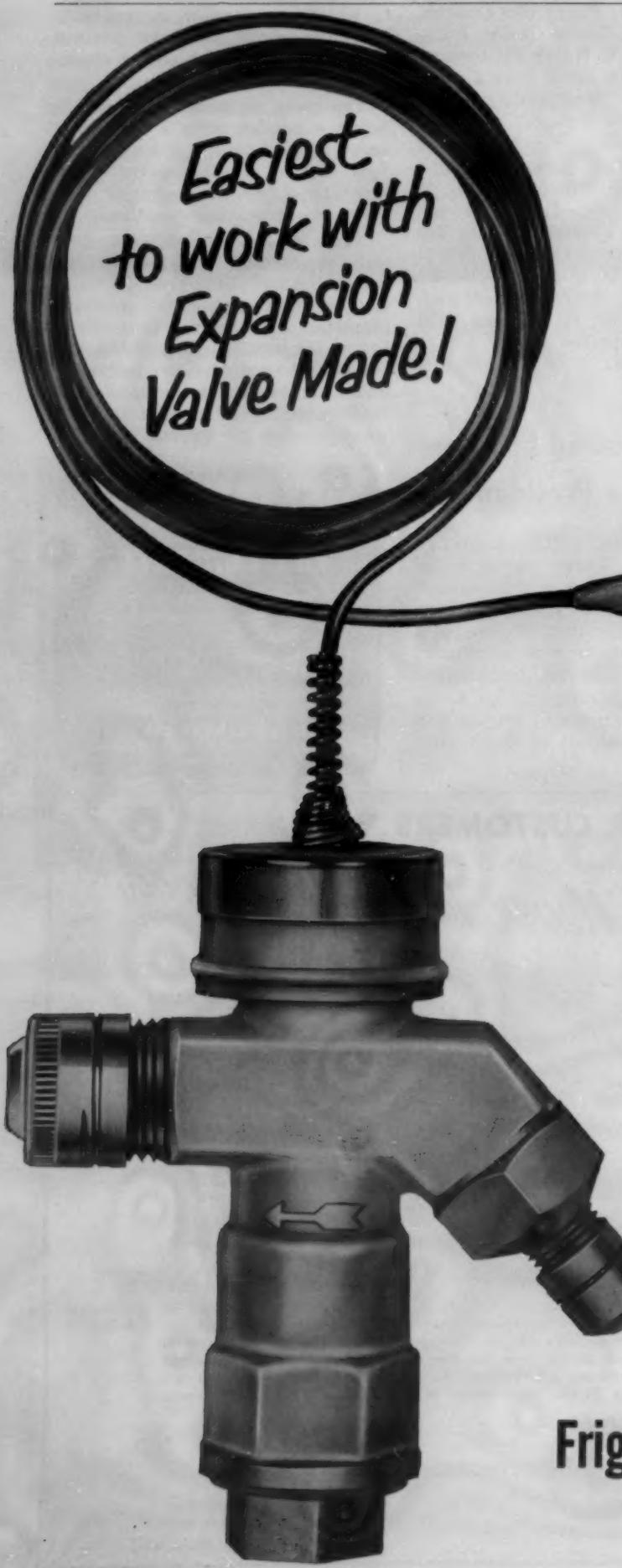
'Wonder Bender' Handles Variety of Metals

KEY NO. E-335

LONG ISLAND CITY, N. Y.—Elgen Mfg. Corp. has announced the "Wonder Bender," newest addition to the Elgen line.

It is 23 in. long; weighs only 12 lbs.; and can be carried in regular work kits. It bends steel, iron, aluminum, brass, and copper; bends flat bars up to ¾ in. by 2 in.; rods up to ¾ in. diameter.

Wonder Bender will retail for \$20.



Frigidaire Modulex valve works accurately in any position . . . withstands temperature extremes

because the bulb alone controls the valve

A Modulex Valve . . . with its super-sensitive "feeler" bulb . . . gives precise refrigerant control whether mounted sideways, upside down or at any angle. Simple and compact, it's specially recommended for automatic defrosting . . . for every new or replacement need. Install it anywhere!

Servicemen call this valve "the finest in the business." And like all Frigidaire Service Parts, it's precision-built of quality materials, factory-tested and warranted for one year.

Withstands cold—Modulex control is amazingly accurate even when valve is frozen in ice.

Withstands heat—Extreme heat does not affect valve's super-sensitivity to temperature and load changes.

Withstands moisture—Humidity and condensation cannot affect valve. The carbon pile bulb is hermetically sealed. All-steel construction . . . waterproof.

Cut call-backs, build good will, call your Frigidaire Distributor for Frigidaire Modulex Valves or for valves used in any commercial or air conditioning application. Call him, too, for your entire service needs. He carries a complete stock of genuine Frigidaire Precision-Built Parts.

Modulex Valve Specifications—Hermetically-sealed, single bellows operation; all-metal, moisture-proof construction; self-locking adjusting screw; replaceable needle and valve seat; easily removable strainer and self-aligning stainless steel needle. Capacities from ¼ ton to 8 tons/Hr. Types for SO₂—Freon 12—Freon 22—Methyl Chloride. 23 models available—built and backed by Frigidaire and General Motors.

Frigidaire

PRECISION-BUILT SERVICE PARTS AND ACCESSORIES

BOOST YOUR PROFITS SKY HIGH

... BY SELLING THE FAMOUS CARBONATORS THAT REDUCE BEVERAGE COSTS TO ROCK BOTTOM

A Model for every need . . . Preferred by leading users, from neighborhood Taverns to luxurious Cocktail Lounges, from Drugstores to Major League Ballparks.

- Highest carbonation.
- Most foolproof.
- Midget size with giant capacity

Jet Foamless Carbonators by Carbonic Dispenser U. S. Patent No. 2,580,677.

MAIL THIS COUPON TODAY

For literature outlining the opportunity now open to make bigger profits selling Carbonic Dispenser Equipment.

Name _____

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IN CANADA: GENERAL EQUIPMENT CORP., LTD., TORONTO, ONT.

CARBONIC CD
DISPENSER INC.

General Offices: Canfield, Ohio
Branch Offices:
1051 Randolph St., Los Angeles, Calif.
1051 Randolph St., Los Angeles, Calif.

What's New (Con't)

Unit Provides Hot, Cold Water Under Pressure

KEY NO. E-336

DAYTON—A single compact electrical unit that will provide both hot and cold running water under pressure for small homes, resort cottages, filling stations, and similar installations is now on the market.

The unit includes a complete automatic water system, pressure tank for cold water, and a 12-gal. hot water heater with adjustable thermostat.

This system is known as the "Rapidayton Hot'n Cold" water system, and is made by the Dayton Pump and Mfg. Co.

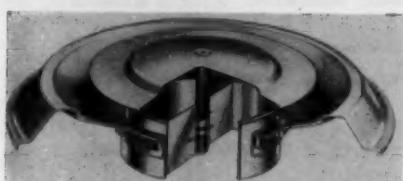
The system is available in shallow well jet and convertible jet models and will pump water from depths as great as 70 ft. It operates on standard 110 a.c. current and can be installed easily and quickly with no more work than hooking up an ordinary water system.

It is 42 in. high, 18 in. wide, and 22 in. deep. For under-the-sink or other installations where space is



at a premium, the pump and pressure tank can be mounted beside the heating tank rather than on it.

Ceiling Diffuser Mixes Air Without Drafts



KEY NO. E-337

DANBURY, Conn.—A new Connor Engineering Corp. Type ABC ceiling diffuser is said to combine a number of features in a "simple, compact, moderate-cost outlet."

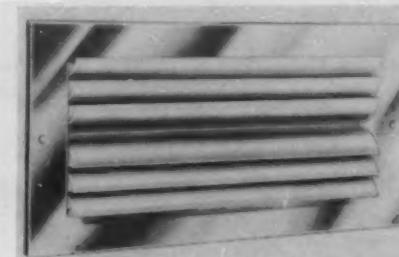
The single, high induction air stream results in rapid and draftless mixing of supply and room air, according to the company.

"Incoming air is deflected away

from the adjacent ceiling by a unique, built-in anti-smudge cone, a protection against unsightly dirt rings when the diffuser is flush-mounted," Connor said.

"A calibrated, sleeve-type damper accurately regulates air volume, permitting simple and rapid system balancing. Air quantity, but not discharge velocity, is affected by the damper. Hence the diffusion pattern within the space remains uniform regardless of damper setting.

Of spun and fabricated steel construction and sprayed aluminum lacquer finish, the "Kno-Draft" ABC diffuser is available in 4 to 12-in. neck diameter.



High Sidewall, Ceiling Grille Is Adjustable

KEY NO. E-338

WATERLOO, Iowa—Titus, Inc. has announced a new Series 200 grille especially designed to handle the complex demands of distributing both cool and warm air from openings in ceilings and high sidewalls.

All louvers can be moved to give one, two, or four-way air diffusion.

Louvers are made of solid section extruded aluminum. In addition, they are especially wide, and are curved.

New grilles have five applications.

They are (1) for overhead forced air systems. (2) For high sidewall installations. (3) For replacement of old warm air registers when cooling or air conditioning is added. (4) For replacement of old style outlets in problem areas to correct chilling or uncomfortable drafts. (5) For bringing in overhead air conditioning where steam or hot water are presently being used.



Ice Flaker Designed For 'Small User'

KEY NO. E-339

ALBERT LEA, Minn.—Designed primarily to meet the "small user" demand for a flaked ice machine, the new Scotsman model SF-75WS "Super Flaker" has been announced by The American Gas Machine Co., Div. of Queen Stove Works, Inc.

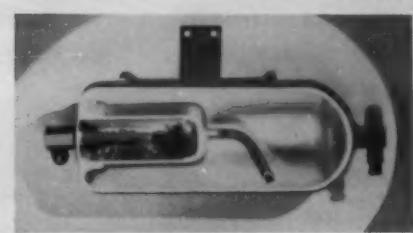
Called the "Lil' Shaver," it is claimed to be the lowest-priced, completely automatic flaked ice machine on the market.

The unit is recommended for luncheonettes, fountains, theaters, drive-ins, popcorn stands, etc., "because of its small size and large ice production for its class."

This model has a reported daily capacity of 100 to 200 lbs. of pure

flaked ice in ready-to-use form. Self-contained storage bin holds up to 100 lbs. of flaked ice.

Simplicity of design makes this new flaker easy to install, according to the manufacturer.



Liquid Receivers Are Self-Dehydrating

KEY NO. E-330

BUFFALO—Development of a line of new dual function, self-dehydrating liquid receivers specially designed for "close quarters" installation such as encountered in automobile air conditioning systems is announced by Tube Manifold Corp.

These liquid receivers have the hydro-gel dehydrator mounted inside and concentric with the receiver shell.

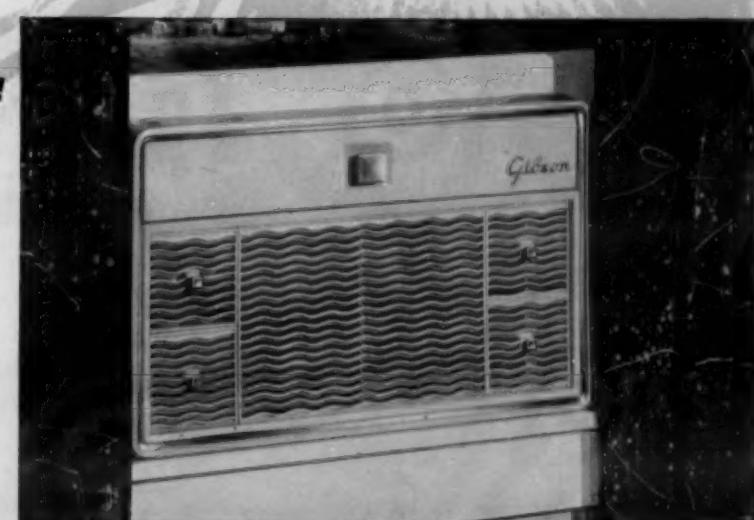
"By combining liquid receiver and dehydrator, you eliminate one set of purchased parts, one set of fittings, one set of brackets," the company said. "Assembly and installation time is cut. One source of leaks is eliminated."

The entire unit is hydrogen copper brazed and tested under water at 450 p.s.i., it was stated.

Gibson

best air conditioners under the sun!

STYLED TO SELL!
PRICED FOR PROFIT!



Gibson's got what dealers want for 1955! Take room air conditioners, for instance—Gibson has $\frac{3}{4}$, 1, and $1\frac{1}{2}$ H.P. models, standard and deluxe, the size and style your customers want! And Gibson is loaded with features that you can sell—multi-mount installation that permits flush mounting or any desired interior projection...Electro-static Dust Magnet Filter...draft-free circulation...push-button controls...Gib-Sun-Air Ozone Lamp...Super Heat'r unit for cool days!

And so that you have a complete air conditioning line, Gibson now introduces the self-contained air conditioner shown below, available in 2, 3 and 5 ton capacities for residential or commercial installations! Clip the coupon, and find out about the profits you can make with Gibson air conditioners!

These Gibson features make sales!
Push-Button Controls! For circulation speed, cooling, or heating.
Gib-Sun-Air Ozone Lamp! Purifies room air. Removes stale odors.
Draft-Free Circulation! Adjustable twin louvers.
Thermostat! Automatically controls cooling.
Electro-Static Dust Magnet Filter! Permanent, easy to clean.
No Rust Stains! Galvanized steel cabinet, protected by 2 coats of enamel.

GIBSON REFRIGERATOR COMPANY • GREENVILLE, MICHIGAN
Manufacturers of Refrigerators • Electric Ranges • Food Freezers • Air Conditioners
75 years of experience and millions of satisfied customers mean you can always rely on Gibson!



Clip the coupon, send for all the facts!

GIBSON REFRIGERATOR COMPANY
Greenville, Michigan

* Please rush full facts on Gibson Air Conditioners.

Name _____

Firm _____

Address _____

City _____

State _____

(PLEASE PRINT PLAINLY)

Name Title
Company
Street
City Zone State
Type of Business

MAIL THIS FORM TO

AIR CONDITIONING & REFRIGERATION NEWS
Readers Service Dept.

450 W. FORT ST. DETROIT 26. MICHIGAN

LISTING Complete Home Cooling Systems

U. S. Capitolaire

U. S. Radiator Corp., Detroit 31, Mich.

Model No.	2-W-55	3-W-55	5-W-55	2-A-55	3-A-55
CABINET DIMENSIONS (In Inches)					
Height	59	59	66	59	59
Width	22	22	26	22	22
Depth	22	22	26	22	22
COMPRESSOR					
Type	2	2	4	2	3
Cylinders	1725	1725	1725	1725	1725
R.p.m.			Tecumseh		
Make					
H.P.	1½	2	5	2	3
Cooling method			Suction		
COMPRESSOR MOTOR					
Phase	1-3	1-3	1-3	1-3	1-3
Cycle	60	60	60	60	60
Volts	230, 220	230, 220	230, 220	230, 220	230, 220
CONDENSER					
Type			Cleanable		
Self-contained or remote			Self-contained or remote		
Cooling medium			Water		Air
EVAPORATOR					
Face area (sq. ft.)	2.25	2.25	3.5	2.25	2.26
Rows (No.)	3	4	6	3	4
REFRIGERANT					
Type			"Freon-22"		
Charge (lbs.)	4	5	8	4½	5½
BLOWER					
Own			Optional		
CONTROLS					
Temperature			Optional		
AIR FILTER					
Type			Cleanable		
Dimensions			18x18x½		
HEATING					
No					
SHIPPING WEIGHT (lbs.)					
374	402	545	670	726	
SPECIAL FEATURES					
Air-cooled remote condenser hook-up can be made without any special equipment within a matter of minutes by means of charged lines and quick disconnect connections.					

Carrier

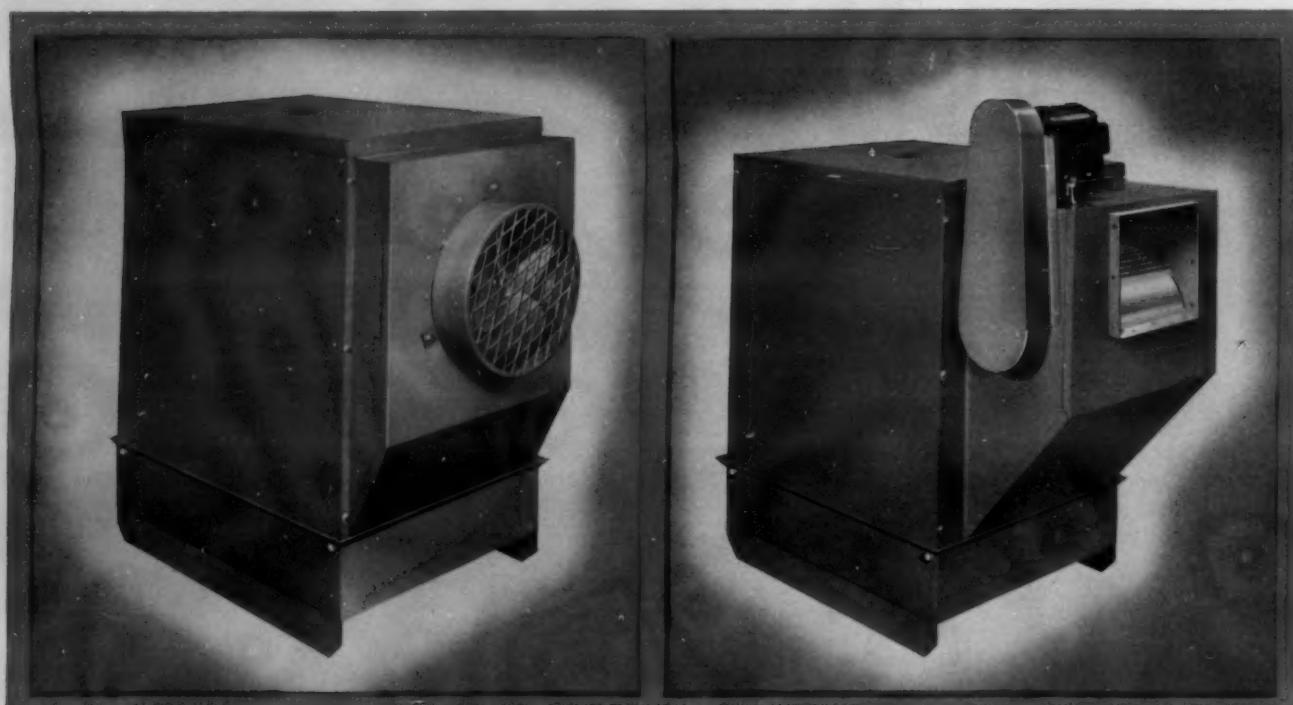
Carrier Corp., 300 S. Geddes St., Syracuse 1, N. Y.

Model No.	38C2	38C2	38C2	38C4	38C4	38B6	38B6	38B8	38D2	38D4	38D6
CABINET DIMENSIONS (In Inches)											
Height	62	62	62	63½	63½	60	60	60	27	27	27
Width	37%	37%	37%	46	46	50	50	58½	42½	50	50
Depth	27%	27%	27%	28½	28½	40%	40%	40%	28	33	33
COMPRESSOR											
Type	2	2	2	2	2	4	4	4	2	4	4
Cylinders	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
R.p.m.											
Make											
Cooling method											
COMPRESSOR MOTOR											
Phase				1, 2 & 3		1 & 3	1 & 3	3	1, 2 & 3		
Cycle	60	60	60	60	60	60	60	60	60	60	60
Volts	200, 208/220, 230, 440, 550			200, 208/220, 230, 440, 550		200, 208/220, 230, 440, 550		200, 208/220, 230, 440, 550		200, 208/220, 230, 440, 550	
CONDENSER											
Type	Shell & tube	Helical finned tube	Shell & tube	Helical finned tube	—Shell & tube—	Shell & tube	—Shell & tube—	Shell & tube	—Shell & tube—	Shell & tube	—Shell & tube—
Self-contained	Remote	Self-contained	Remote	Remote	—Self-contained—	Self-contained	—Self-contained—	Self-contained	—Self-contained—	Self-contained	—Self-contained—
Water	Air	Water	Air	Air	Water	Water	Water	Water	Water	Water	Water
EVAPORATOR											
Face area (sq. ft.)	3.77	2.77	2.77	3.67	4.24	5.25	5.25	7.84	2.82	4.28	5.05
Rows (No.)	2	2	2	2	3	3	3	3	2	2	2
REFRIGERANT											
Type	"Freon-12"	C-7	"F-22"	"F-12"	"Freon-22"	C-7	"F-12"	C-7	"F-12"	C-7	"F-12"
BLOWER											
Own	1	1	1	1	1	1	1	1	1	1	1
Number	800	800	800	1200	1200	2000	2000	3000	2000	3000	3200
C.I.M.	837	837	837	850	850	640	640	790	565	480	470
R.p.m.											
CONTROLS											
Temperature											
Damper											
AIR FILTER											
Number	1	1	1	2	2	3	3	3	0	0	0
Type	20x25	20x25	20x25	16x25	16x25	20x25	20x25	20x25	...	...	...
Dimensions											
EVAPORATOR											
Face area (sq. ft.)	1	1	1	2	2	3	3	3	...	...	...
Rows (No.)	6	6	6	6	6	6	6	6	...	...	...
REFRIGERANT											
Type	"Freon" & "F-22"	water	water								
BLOWER											
Own				Available	Yes						
Number				2	1						
C.f.m.				1000-1400	2200						
R.p.m.				—Variable							
CONTROLS											
Temperature				—No—							
Damper				—No—							
AIR FILTER											
Number	2	2	3	Disposable Glass							
Type	16x20x2	16x20									
Dimensions											
NET WEIGHT (lbs.)											

Round Oak Clima Twin, Clima-Twin-Zone & Clima-Twin Aire

Round Oak Co., Inc., Dowagiac, Mich.

Model No.	HA-1651	RA-251	RA-371	TWD-2681	TWD-3681	CWD-3681	CWD-3691	TWD-6371
CABINET DIMENSIONS (In Inches)								
Height	19 1/2	38 1/2	38 1/2	68 1/2	68 1/2	61 1/2	61 1/2	62 1/2
Width	49 1/2	31 1/2	31 1/2	26	26	26	26	42
Depth	20 1/2	29 1/2	29 1/2	31 1/2	31 1/2	34	34	26
COMPRESSOR								
Type					Hermetic			
Cylinders	2	2	2	2	2	2	2	(2) 2
Bore (in.)	1.5	1.75	2	1.2	1.2	1.2	1.2	1.2
Stroke (in.)	1.01	1.2	1.2	1.75	2	1.75	2	1.75
R.p.m.	1725	1725	1725	1725	1725	1725	1725	1725
Make				Tecumseh				
Hp.	1 1/2	2	3	2	3	2	3	5 (2 & 3)
Cooling method			Air			Water		
COMPRESSOR MOTOR								
Phase	1	1	1	1	1	1	1	1
Cycle	60	60	60	60	60	60	60	60
Volts	230	230	230	230	230	230	230	230
CONDENSER								
Type				Cross Fin		Spiral wound inner fin		
Self-contained or remote				Self-cont.	Remote	Self-contained		
Cooling medium				Air		Water		
EVAPORATOR								
Face area (sq. ft.)	1.94	2.11	2.53	2.11	2.53	2.11	2.53	4.12
Rows (No.)	3	3	4	3	4	3	4	4
REFRIGERANT								
Type				'Freon-22'				
Charge (oz.)				43	47	43	47	82
BLOWER								
Own	Yes	No	No			Yes		
Number	1			1	1	1	1	
C.f.m.	600			800	1200	800	1200	2000
CONTROLS								
Temperature				Yes		Yes		
Damper								
	Yes	No	No					
AIR FILTER								
Number				1	1	1	1	2
Type				20x25	20x25	20x25	20x25	16x25
Dimensions (in.)								
SPECIAL FEATURES								
				3 Phase Optional				

SMASHING SUCCESS STORY**LARKIN WATER-SAVER COOLING TOWER IS GOING GREAT GUNS ALL OVER NATION**

Not since Larkin introduced its now famous Frost-o-Trol® hot gas defrost system has a smash hit like this come along!

The Larkin Water-Saver is THE answer to the growing demand for a high-quality, low-priced cooling tower.

Wholesalers and dealers took to this new line like ducks to water, when it was introduced about a year ago—following more than two years of research and engineering. From coast to coast, the orders poured in—and they keep on coming in, new orders and repeat orders. THIS is the real answer to whether a product's really got it!

Propeller or Centrifugal Models

A feature with wide appeal is that the Water-Saver is available with propeller fan or centrifugal blower. There is a variety of models in each type.

Dealers and wholesalers praise the capacity ratings, the compactness, and the prices that permit competitive selling.

All of these outstanding features are building sales:

Wetted surfaces are of all-heart redwood, with nail-less, interlocked construction. More wetted surface than other towers of comparable tonnage. Bolted construction—unit is easily dismantled in the field—all the way down to the sump. Panels are 16-gauge steel; sump is 12-gauge. Entire unit finished with two coats of baked on corrosion-resistant synthetic enamel. Mastic coated inside. Intake screen available as optional equipment. Motors—two and three-ton models with fan have direct drive, totally enclosed motors. All other models are belt driven, with drip-proof motors. Propeller fan and blower assembly easily interchangeable in the field. Centrifugal blowers have bronze sleeve bearings; belt-driven propeller fans have neoprene-sealed ball bearings. Stainless steel shafts on belt-driven propeller model. Blowers, propeller fans and scrolls are hot-dip galvanized and dynamically balanced after fabrication. All-bronze float and float valve. Gravity-type distribution basin—low pumping head over tower. Distribution basin cover supplied as standard equipment. Water outlet in sump has large strainer and anti-cavitation plate, easily removed for cleaning.

Dealers: get in touch with your wholesaler now about this great new Larkin line. Wholesalers: get in touch with your Larkin representative, or write us direct, for full information.



LARKIN COOLERS INC.

519 MEMORIAL DRIVE, S.E., ATLANTA, GA., — MAIN-3171

Lipman Convertible

Yates-American Machine Co., Lipman Div., Beloit, Wis.

Model No.	LH200	LH300	LH300	LH750
DIMENSIONS (In In.)				
Height	47%	47%	50%	50%
Width	36	36	46	46
Depth	21	21	29	29
COMPRESSOR				
Type		Accessible Hermetic		
Cylinders	2	2	2	3
Bore (in.)	1 15/16	2 1/4	2 1/2	2 1/2
Stroke (in.)	1 1/8	1 7/16	1 13/16	2
R.p.m.	1750	1750	1750	1750
Make		Copeland		
Hp.	2	3	5	7 1/2
Cooling method		Water		
COMPRESSOR MOTOR				
Phase	1 & 3	1 & 3	1 & 3	3
Cycle	60	60	60	60
Volts	220-230	220-230	220-230	220
CONDENSER				
Type		Cleanable Self-contained Water		
Self-contained/remote		Water		
Cooling medium		Water		
EVAPORATOR				
Face area (sq. ft.)	2.7	2.7	3.8	3.8
Rows (No.)	3	4	5	6
REFRIGERANT				
Type		'Freon-12'		
BLOWER				
Own		Yes		
Number	1	1	1	1
C.f.m.	800	1200	2000	3000
CONTROLS				
Temperature		No		
Damper		No		
AIR FILTER				
Number	1	1	1	1
Type		Disposable		
Dimensions	20x25x1	20x25x1	25x25x1	25x25x1
HEATING				
NET WEIGHT (lbs.)	480	535	860	1080

WaterburyThe Waterman-Waterbury Co.
1121 Jackson St. N.E., Minneapolis 13, Minn.

Model No.	P2	P2H	P3	P3H
DIMENSIONS (In Inches)				
Height	63	20	63	20
Width	28	23	28	23
Depth	28	42	28	42
COMPRESSOR				
Type		Hermetic Tecumseh		
Make	2	3	3	3
Hp.	2	3	2	3
Cooling method		Refrigerant		
COMPRESSOR MOTOR				
Phase		Single or 3 phase		
Cycle	60	60	60	60
Volts	220-230			

Self-Contained Home Cooling Systems

Worthington

Worthington Corp., Harrison, N. J.

Model No.	SCYH-20	SCYH-40	RAC-200	RAC-400	RAC-600
CABINET DIMENSIONS (In Inches)					
Height	70	70	38½	42½	38½
Width	42	42	39½	44½	64
Depth	29	29	26	29	26
COMPRESSOR					
Type			Hermetic		
Cylinders	2	3	2	3	3
R.p.m.	1725	1725	1725	1725	1725
Make			Worthington		
Hp.	2	3	2	3	5
Cooling method			Refrigerant		
CONDENSER					
Self-contained or remote	Self-Contained	—	Remote	—	—
Cooling medium	Water	—	Air	—	—
EVAPORATOR					
Face area (sq. ft.)	2.8	3.3	1.95	2.80	3.40
Rows (No.)	2	2	4	3	4
REFRIGERANT					
Type	“Freon-12”	—	“Freon-22”	—	—
Charge (lbs.)	6.5	9	—	—	—
BLOWER					
Number	1	1	1	1	1
C.f.m.	1000	1200	800	1200	2000
R.p.m.	843	860	—	—	—
CONTROLS					
Temperature	Yes	Yes	—	—	—
Damper	No	No	—	—	—
AIR FILTER					
Number	2	2	—	—	—
Type	T	T	—	—	—
Dimensions	25x16x1	25x16x1	—	—	—
HEATING					
Oil or gas warm air	No	No	No	No	No

Barkow Weatherwise

Aug. G. Barkow Mfg. Co., Inc., 2230 S. 43rd St., Milwaukee 15, Wis.	FU2	FU3	F5K	O-2	O-3
CABINET DIMENSIONS (In Inches)					
Height	36	36	66½	25	25
Width	36	36	38	25	25
Depth	21	21	24½	49½	49½
COMPRESSOR					
Type	—	Semi-Hermetic	—	—	—
Make	Tecumseh	Copeland	Tecumseh	—	—
Hp.	2	3	5	2	3
Cooling method	—	Suction	Water	—	—
COMPRESSOR MOTOR					
Phase	1 & 3 Phase	—	—	—	—
Cycle	230-220	230-220	230-220	230-220	230-220
Volts	60	60	60	60	60
CONDENSER					
Type	Counterflow	Cleanable	—	—	—
Self-contained or remote	Self-Contained	—	—	—	—
Cooling medium	Water	—	—	—	—
EVAPORATOR					
Face area (sq. ft.)	2.8	4.2	3.75	2.26	3.25
Rows (No.)	4	4	4	3	3
REFRIGERANT					
Type	“Freon-22”	“Freon-12”	“Freon-22”	—	—
Charge (oz.)	64	64	96	64	64
BLOWER					
Own	No	No	—	Optional	—
Number	—	—	1	1	1
CONTROLS					
Temperature	—	Optional on All Models	No	—	—
Damper	—	—	—	—	—
AIR FILTER					
Number	No	No	—	Optional	—
Type	Alumi-Loy	Throwaway	—	—	—
Dimensions	15x20x1	20x20x2	20x20x2	—	—
HEATING					
NET WEIGHT (lbs.)	—	710	360	384	—

Sun

J. V. Patten Co., Sycamore, Ill.	S-251	S-351	S-651	SA-251	SA-351
CABINET DIMENSIONS (In Inches)					
Height	56	56	62	56	56
Width	22	22	26	22	22
Depth	22	22	26	22	22
COMPRESSOR					
Type	—	Hermetic	—	—	—
Cylinders	2	2	4	2	2
R.p.m.	1725	1725	1725	1725	1725
Make	—	Tecumseh	—	—	—
Hp.	1½	2	5	2	3
Cooling method	—	Suction	—	—	—
COMPRESSOR MOTOR					
Phase	230	230	230	230	230
Volts	—	1 or 3 Phase	—	—	—
CONDENSER					
Type	Counterflow	—	—	—	—
Self-contained or remote	Self-Contained	—	—	—	—
Cooling medium	Water	—	—	—	—
EVAPORATOR					
Face area (sq. ft.)	2.25	2.25	3.5	2.25	2.25
Rows (No.)	3	4	5	3	4
REFRIGERANT					
Type	—	“Freon-22”	—	—	—
Charge (lbs.)	4	5	10	10	11
BLOWER					
Own	900	1350	2400	900	1350
C.f.m.	—	Yes	—	—	—
R.p.m.	—	—	—	Variable motor pulleys supplied	—
CONTROLS					
Temperature	—	Yes	—	—	—
Damper	—	Yes	—	—	—
AIR FILTER					
—	—	Optional	—	—	—
HEATING					
Oil fired or gas fired companion warm air furnaces, 76,000 to 224,000 B.t.u./hr.	386	405	545	580	715
NET WEIGHT	—	—	—	—	—

You Harvest Bigger Profits With a Frick Shell-Ice Maker

Ideal for dairies, fisheries, poultry and vegetable packing houses, hotels, institutions, industrial plants, etc. Shell-Ice is frozen on vertical tubes by direct-expansion ammonia or Freon, in thicknesses of $\frac{1}{8}$ " to $\frac{1}{2}$ ", and is broken by spinners to size desired. No snow, scrapings of waste; no scale, no cleaning. Shell-Ice is dry and hard, and with suitable water is clear. This ice maker is fast, efficient, and automatic. All-steel construction; no delicate parts. Requires very small floor space. Sizes $\frac{1}{2}$ to 30 tons capacity. Dozens already in service. Write for Bulletin 34.

FRICK CO. DEPENDABLE REFRIGERATION SINCE 1882 WAYNESBORO, PENNA. U.S.A.

The new Frick Shell-Ice Maker saves time, money and labor.

Chrysler Airtemp

Airtemp Div., Chrysler Corp., 1600 Webster St., Dayton, Ohio

Model No.	1502-1	1503-2	1505-1	1508-1	1202-1	1203	1205	1208
CABINET DIMENSIONS (In Inches)								
Height	59	59	59	59	22	22	35	35
Width	35							



Trade Mark registered U. S. Patent Office; Est. 1926.

F. M. COCKRELL, Founder

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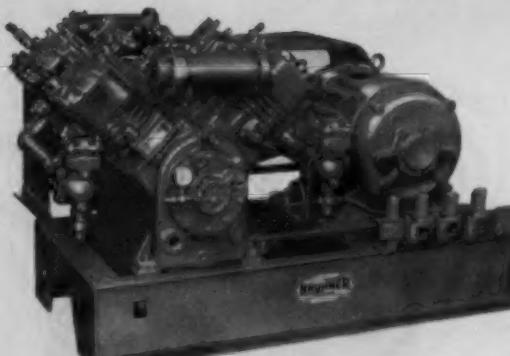
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Brunner
planned
it
that
way...



BRUNNER CONDENSING UNITS

... for remote air conditioning installation in commercial and industrial applications, are supplied in sizes up to 75 H.P. with capacity control. Brunner Compressor Units for use with evaporative condensers also available up to 75 H.P.

BRUNNER AIR CONDITIONERS
... completely self-contained, are available in various models up to 20 H.P. for residential or business installations. Easy to install, cost less to operate.

We Can't Build a Good Business On Dishonesty

(Concluded from Page 1)

B.t.u. per hour figure (as on heating equipment) plus the full load current. If all such ratings were given at standard conditions, the purchaser would know not only the actual capacity, but also the necessary power requirements for sizing electrical connections. (Naturally, these ratings should require identical conditions across the evaporator and condenser coils).

One of the manufacturers whose equipment was on display at the ASHAE Show in Philadelphia claimed three ton output for a two horsepower, water-cooled machine at "standard conditions." The conditions were not defined. Member of this firm claimed this was possible because of a new type of tubing, which gives "more efficient heat transfer." When asked, sardonically, if his firm uses the new type of disc-shaped B.t.u., he gave a straight-faced answer that "he really didn't know whether they did or not."

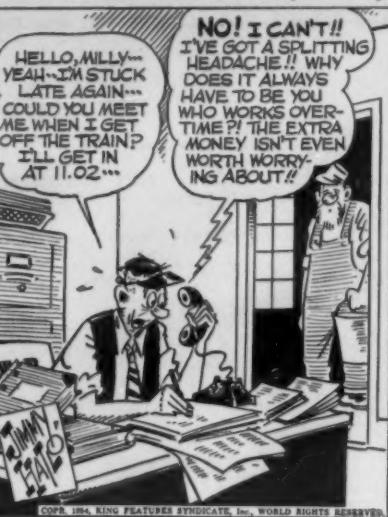
Similar confusion exists in some areas where one would normally not expect it. Recently a large scale project builder was taken in, but bad, by false ratings. He bought supposedly 1½ horsepower, air-cooled machines; but found that their *actual* 1.2 tons output was insufficient. Possibly he deserved what happened to him for buying direct. Fact remains that this project builder is disgusted for all time with residential air conditioning.

Here is a tested formula for output ratings:

A refrigerant compressor is rated by the amount of gas it pumps. At 40 p.s.i. suction and 125 p.s.i. discharge, reasonably average conditions for water-cooled jobs, the compressor is operating against a pressure differential of 85 p.s.i. The same compressor, air cooled, operates at 40 p.s.i. suction—but at a discharge

They'll Do It Every Time . . . Jimmy Hatlo

MILITIA'S ALL UPSET WHEN LOCUST WORKS LATE...THE TIME-AND-A-HALF DOUGH DOESN'T MEAN A THING (SHE SAYS)



BUT WHO'S RIGHT THERE TO MEET HIM ON PAY DAY WITH THE EXTRA MOOLA COMPUTED TO THE DECIMAL?!!



pressure in the neighborhood of 175 p.s.i., or at a pressure differential of 135 p.s.i.

Obviously, if both compressors are to handle the same quantity of gas, and therefore produce the same cooling effect, the air-cooled machine at 135 p.s.i. differential requires greater power input.

Also it is true that if the temperature of outdoor air passing across the condenser rises, head pressures will jump, and even more horsepower will be required.

Probably this explanation is oversimplified in the strict engineering sense. However, we have been assured by experts that it is fundamentally correct.

Because a warm air heating system can be made to work with small furnaces and narrow ducts, too many uninformed installers believe that the same thing can be done with residential air conditioning. In a heating system inadequate air delivery can be balanced by higher air temperatures. Plus—small furnaces can be overfired.

In air conditioning one gets out only what one puts in, and there is no way to step up the horsepower of a given electric motor. Hence, improper quotations, based upon overrated capacities, are misleading.

Room cooler ratings are equally culpable. We quote a letter signed by one of the most respected Presidents in our industry.

"Attached is a sheet giving the data with respect to our room air conditioners, for your Air Conditioning Specifications Issue. You will note that certain figures have been entered on this sheet in red. We have done this because we believe figures in this category should not be published unless there is some qualification to indicate that they are not necessarily exact.

"Ratings published by too many room air conditioner manufacturers are, generally, without integrity. Hence, it's our belief that none of us should publish B.t.u. ratings. Instead, we could state: 'This ¾-hp. model is guaranteed to have an actual cooling power greater than that of other units with published ratings under ASRE conditions of 9,000 B.t.u./hr.'

"We are faced with these alternatives: Say nothing about ratings; rate our products a little higher than competitors; or give actual capacities to be expected—and allow less scrupulous competitors to crucify us."

"Herewith a genuine tabulation scored by actual laboratory tests of 1954 model ¾-hp. window units.

Published Rating B.t.u./hr.	Measured Capacity B.t.u./hr.	Over-Rating B.t.u./hr.	%
8850	7200	1650	23
9010	8350	660	8
9100	8190	910	11
8650	6300	2350	37
8500	7450	1050	14
9150	7500	1650	22
8800	7120	1680	24

"Please don't get the idea that we are taking a holier than thou attitude," writes this executive. "In the past we also followed the practice of overrating our units. We had to, to be competitive, with other overrated units. But now the practice has gone to the ridiculous."

Ridiculous is hardly the word for it. DISHONEST is a better definition.

Slogan bestowed upon AIR CONDITIONING & REFRIGERATION NEWS by many in the business is "Conscience of the Industry." Conscientiously fulfilling that function, we say:

LET'S GET TOGETHER AND ESTABLISH HONEST STANDARDS.



Compressor Experience
Product Research
Design Engineering
Wide Product Range
Proven Quality
Complete Dependability
Easy Servicing
Warranted Performance
Nearby Distributor Service
Profit Opportunity
Advertising Support
Sales Promotion Help

Self-Contained Home Cooling Systems

Yorkaire

York Corp., York, Pa.

Model No.	HC 250A	HC 353A	HC7	HC11	HC152	HC 250W	HC 353W
DIMENSIONS (In.)							
Height	51%	51%	22%	22	22	51%	51%
Width	31	42	17%	17½	25	31	42
Depth	23½	23½	19%	16%	16%	23½	23½
COMPRESSOR							
Type	2	3	2	2	3	2	3
Cylinders	1%	1%	1-9/32	1%	1%	1%	1%
Bore (in.)	1	1	1-9/32	1%	1-9/32	1-15/16	1-15/16
Stroke (in.)	27/32	11/16	%	27/32	11/16	27/32	11/16
R.p.m.	1720	1720	1720	1720	1720	1720	1720
Make	York						
Hp.	(2) 1	(2) 1½	%	1	1½	(2) 1	(2) 1½
Cooling method	Refrigerant						
COMPRESSOR MOTOR							
Phase	1	1	1	1	1	1	1
Cycle	60	60	60	60	60	60	60
Volts	230, 208	230, 208	230, 208	230, 208	230, 208	230, 208	230, 208
CONDENSER							
Type	Shell						
Self-con./remote	Self-contained						
Cooling medium	Air	Water					
EVAPORATOR							
Face area (sq. ft.)	2.82	4.56	1.17	1.18	1.77	2.82	4.56
Rows (No.)	3	3	3	3	3	3	3
REFRIGERANT							
Type	'Freon-22'						
Charge (oz.)	52	84	23	28	36	56	84
BLOWER							
Own	Optional						
No.	1	1	...	...	1	1	
C.f.m.	1000	1200	...	...	1000	1200	
R.p.m.	Adjustable						
CONTROLS							
Temperature	Optional						
Damper	No						
AIR FILTER							
Number	1	1	...	...	1	1	
Type	Throwaway						
Dimensions (1 in.)	16x25	16x35%	...	...	16x25	16x35%	
HEATING							
NET WEIGHT (lbs.)	380	465	115	120	190	326	396

Yorkaire

(Cont.)

Model No.	HC 352B	HC 552B	HC752	R2G140 R2F84	RSG140 R3F112	HCS 250A	HCS 353A
DIMENSIONS (In.)							
Height	48	48	51½	63	66	32½	32½
Width	32	42	46	36½	44½	31	42
Depth	23	23	27	26	29	23½	23½
COMPRESSOR							
Type	Hermetic						
Cylinders	4	6	6	2	3	2	3
Bore (in.)	1½	1¾	1¾	1¾	1¾	1¾	1¾
Stroke (in.)	¾	13/16	1-9/32	27/32	11/16	27/32	11/16
R.p.m.	1720	1720	1720	1720	1720	1720	1720
Make	York						
Hp.	3	5	7½	(2) 1	(2) 1½	(2) 1	(2) 1½
Cooling method	Refrigerant						
COMPRESSOR MOTOR							
Phase	1, 2, 3	1, 2, 3	2, 3	1	1	1	1
Cycle	60	60	60	60	60	60	60
Volts	208, 220, 230, 440	208, 220	230, 208	230, 208	230, 208	230, 208	230, 208
CONDENSER							
Type	Shell						
Self-con./remote	Double pipe						
Cooling medium	Water						
EVAPORATOR							
Face area (sq. ft.)	3.55	5.93	8.70	2.60	3.82	2.60	3.82
Rows (No.)	3	3	3	3	3	3	3
REFRIGERANT							
Type	'Freon-22'						
Charge (oz.)	78	106	160	72	78	80	96
BLOWER							
Own	No						
No.	1	Opt.	1	Yes	1	1	1
C.f.m.	3000	800	800	1200	1200	1200	1200
R.p.m.	Adjustable						
CONTROLS							
Temperature	Optional						
Damper	Yes						
AIR FILTER							
Number	2	2	4	1	1	1	1
Type	Cleanable						
Dimensions (1 in.)	13x22½	13x37	15½x22½	16x25	20x25	16x25	20x25
HEATING							
Optional	Steam, H. W.						
Steam	Gas, Oil						
NET WEIGHT (lbs.)	550	731	680	625, 746	835, 1007	390	475
SPECIAL FEATURES							
Models HCS250A and HCS353A have Hermiseal Valve which eliminates breaking the hermetic seal to install the remote system.							

Crane-Line

Model No.	2A100	3A140	220A	320W	510W
DIMENSIONS (Inches)					

Self-Contained Home Cooling Systems

Hupp Wattsaver

Hupp Corp., 1250 West 76th St., Cleveland 2, Ohio	2 ton water	3 ton water	2 ton air	3 ton air	5 ton water
CABINET DIMENSIONS (In Inches)					
Height	59½	59½	59½	59½	66½
Width	22	22	22	22	26
Depth	22	22	22	22	26
COMPRESSOR					
Type			Hermetic		
Cylinders	2	2	2	2	4
R.p.m.	1725	1725	1725	1725	1725
Make			Tecumseh		
Cooling method			Suction		
COMPRESSOR MOTOR					
Phase	Single	—	Single or three phase	—	—
Cycle	60	60	60	60	60
Volts	115-230	Three wire for all			
CONDENSER					
Type	Integral	Counter Flow	Remote	Integral	Water
Self-contained or remote	—	—	—	—	—
Cooling medium	Water	Air	Integral	Water	
EVAPORATOR					
Face area (sq. ft.)	2.25	2.25	2.25	2.25	3.5
Rows (No.)	3	4	3	4	5
REFRIGERANT					
Type		“Freon-22”			
Charge (lbs.)	4	5	10	11	10
BLOWER					
Own			Optional		
Number	1	1	1	1	1
C.f.m.	800-900	1200-1350	800-900	1200-1350	2000-2400
CONTROLS					
Temperature			External Thermostat		
Damper			No		
AIR FILTER					
Number	1	1	1	1	1
Type			Permanent		
Dimensions	18x18		22x22		
HEATING					
NET WEIGHT (lbs.)	385	405	670	720	545
SPECIAL FEATURES					
Extreme flexibility, air-cooled equipment has remote condensing section. Installation package includes two copper tubes dehydrated and charged to capacity with quick disconnects on each end.					

Bryant

Bryant Div., Carrier Corp., 17825 St. Clair Ave., Cleveland 10, Ohio	2-590	3-590	5-590	150-555	2-560*	3-560*
DIMENSIONS (In Inches)						
Height	63	63	68	19½	21½	21½
Width	25	27	33	25½	30½	30½
Depth	28	28	28	32½	35½	35½
COMPRESSOR						
Type	Hermetic	Semi-Hermetic	Hermetic	Semi-Hermetic		
Cylinders	2	2	2	2	2	
Bore (in.)					2	2
Stroke (in.)				1½	1½	
R.p.m.	1795	1795	1795	1795	1725	1725
Make	Tecumseh	Copeland	Tecumseh	Carrier		
Hp.	2	3	5	1½	2	3
Cooling method	Refrigerant	Water	Refrigerant	Refrigerant		
COMPRESSOR MOTOR						
Phase	1 & 3	1 & 3	1 & 3	1	1 & 3	1 & 3
Cycle	60	60	60	60	60	60
Volts	220-230	220-230	220-230	230	280-220	230-220
CONDENSER						
Type	Shell & Coil	—	Fin & Tube	—	—	—
Self-contained or remote	Self-contained	—	Remote	—	—	—
Cooling medium	Water	—	Air	—	—	—
EVAPORATOR						
Face area (sq. ft.)	1.75	2.62	4.37	2.1	2.48	2.48
Rows (No.)	4	4	4	3	3	4
REFRIGERANT						
Type	“Freon-22”	“F-12”	“F-22”	“F-12”	Carene-7	
Charge (lbs.)				14	16	
BLOWER						
Own				Yes	Yes	
Number	1	1	1	1	1	
C.f.m.	800	1200	2000	600		
R.p.m.	650	650	670	1050		
CONTROLS						
Temperature		Yes				
Damper		Yes				
AIR FILTER						
Number	1	1	2	1	—Optional—	
Type			Throwaway			
Dimensions	14x25x1	20x25x1	16x25x1	11x20x½		
HEATING						
Twin Furnace			No	—Optional—		

*Dimensions are for condenser section.

Bal-Air

Bal-Air, Inc., 1210 McGavock St., Nashville, Tenn.	AC-2R	AC-3 R	AC-5R	AC-2H	AC-3H
CABINET DIMENSIONS (In Inches)					
Height	78	78	78	34	36
Width	30	36	44	60	60
Depth	28	28	28	28	28
COMPRESSOR					
Type			Semi-Hermetic		
Cylinders	2	2	4	2	2
Bore (in.)	2½	2½	2½	2½	2½
Stroke (in.)	1½	1½	1½	1½	1½
R.p.m.	1725	1725	1725	1725	1725
Make			Servel-Copeland		
Hp.	2	3	5	2	3
Cooling method			Refrigerant		
COMPRESSOR MOTOR					
Phase	1	1	1	1	1
Cycle	60	60	60	60	60
Volts	230	230	230	230	230
CONDENSER					
Type			Evaporative		
Self-contained or remote			Self-contained		
Cooling medium			Air & Water		
EVAPORATOR					
Face area (sq. ft.)	1.5	2.5	4.12	1.5	2.5
Rows (No.)	3	4	4	3	4
REFRIGERANT					
Type			“Freon-12”		
Charge (lbs.)	10	12	15	10	12
BLOWER					
Own			Optional		
Number	1	1	1	1	1
C.f.m.	800	1200	2000	800	1200
R.p.m.	877	875	850	877	875
CONTROLS					
Temperature			Optional		
Damper			Optional		
AIR FILTER					
Number	1	1	1	1	1
Type			Throwaway		
Dimensions	12½-18½	15-24	18-23	15-24	15-24
HEATING (optional)					
Steam-Hot Water-Electric					
NET WEIGHT (lbs.)	650	1000	1300	650	1000

UsAireo

United States Air Conditioning Corp. Como Ave. S. E. at 35rd, Minneapolis 14									
Model No.	822100	822150	823100	823150					
DIMENSIONS (In Inches)									
Height	62%	62%	62%	62%					
Width	44	44	44	44					
Depth	37	37	37	37					
COMPRESSOR									
Type	2	2	2	2					
Cylinders	2	2	2	2					
Bore (in.)	1%	1%	1-15/16	1-15/16					
Stroke (in.)	1.2	1.2	1.2	1.2					
R.p.m.	1725	1725	1725	1725					
Make	Tecumseh								
Hp.	2	2	3	3					
Cooling method	Suction Gas								
COMPRESSOR MOTOR									
Phase		1 or 3							
Cycle	60	60	60	60					
Volts	230	230	230	230					
CONDENSER									
Type	Shell and finned coil								
Self-contained or remote	Self-contained								
Cooling medium	Water								

EVAPORATOR									
Face area (sq. ft.)	2.09	2.09	2.6	2.6					
Rows (No.)	4	4	4	4					
REFRIGERANT									
Type			"Freon-22"						
Charge (lbs.)	8	8	9	9					
BLOWER									
Own			Yes						
Number	1	1	1	1					
C.f.m.	800	800	870	1200					
R.p.m.	940	940	940	940					
CONTROLS									
Temperature			Yes						
Damper			Yes						
AIR FILTER									
Number	1	1	1	1					
Type			Permanent						
Dimensions			1x20x25						
HEATING									
			Gas						
NET WEIGHT (lbs.)	1110	1130	1100	1130					
SPECIAL FEATURES									
Cooling section can be added to furnace at later date to make combination unit.									

Majestic

Majestic Co., Inc., Erie St., Huntington, Ind.

Model No.	U-D2M22	U-D2M26	U-D3M22	U-D3M26	H2M22	H2M26	H3M22	H3M26	H3M30
CABINET DIMENSIONS (In Inches)									
Height	62%	68%	62%	68%	71%	44	49	44	49
Width	22	26	22	26	29%	22	26	22	29%
Depth	22	26	22	26	29%	44	48	44	55
COMPRESSOR									
Type					Hermetic				
Make					Tecumseh				
Hp.	2	2	3	3	3	2	2	3	3
Cooling method					Water				
COMPRESSOR MOTOR									
Phase					Single				
Cycle	60	60	60	60	60	60	60	60	60
Volts	220	220	220	220	220	220	220	220	220
REFRIGERANT									
Type					"Freon"				
BLOWER									
Own					Yes				
C.f.m.	800	800	1200	1200	800	800	1200	1200	1200
HEATING									
NET WEIGHT (lbs.)	565	580	565	580	595	585	595	585	610
SPECIAL FEATURES									
All complete with blower and water valve									

Remington

Remington Corp., Auburn, N. Y.

Model No.		120	10D	180	12E	250
CABINET DIMENSIONS (In Inches)						
Height		37%		37%		37%
Width		34%		34%		34%
Depth		19	19	21%	19	21%
COMPRESSOR						
Type				Hermetic		
Cylinders	2	2	2	2	2	2
R.p.m.	1728	1728	1728	1728	1728	1728
Make	Copeland			Tecumseh		
Hp.	1	1	1	1	1	2
Cooling method	Air			Suction		
COMPRESSOR MOTOR						
Phase	1	1	1	1	1	1
Cycle	60	60	60	60	60	60
Volts	230	230	230	230	230	230
CONDENSER						
Type				Evap.		
Self-contained or remote				Self-contained		
Cooling medium				Air		
EVAPORATOR						
Face area (sq. ft.)	1.67	1.67	1.67	1.67	1.67	1.67
Rows (No.)	2	2	3	3	3	3
REFRIGERANT						
Type				"Freon-12"		
BLOWER						

Luxaire

The C. A. Olsen Mfg. Co., Elyria, Ohio

Model No.	2A100*	2HC100†	3A140*	220A*	221W	H221W
DIMENSIONS (In Inches)	3084	30HC84	30112	230W	221W	H221W
Height	63	73	66	53	49	65½
Width	36½	36½	44½	31	18	18
Depth	26	26	29	23	29	29
COMPRESSOR				Sealed		
Type	2	2	3	2	2	2
Cylinders	1%	1%	1%	1%	1%	1%
Bore (in.)	2-7/32	2-7/32	2-7/32	2-7/32	2-7/32	2-7/32
Stroke (in.)	1725	1725	1725	1725	1725	1725
R.p.m.	1 (2)	1 (2)	1 (2)	1 (2)	1 (2)	1 (2)
Make			York			
Hp.	1 (2)	1 (2)	1 (2)	1 (2)	1 (2)	1 (2)
Cooling method			Refrigerant			
COMPRESSOR MOTOR				Sealed		
Phase	1	1	1	1	1	1
Cycle	60	60	60	60	60	60
Volts	230/208	230/208	230/208	230/208	230/208	230/208
CONDENSER				Shell & Tube		
Type				Self-contained		
Self-contained or remote				Water		
Cooling medium						
EVAPORATOR						
Face area (sq. ft.)	2.60	2.60	3.82	2.60	2.60	2.60
Rows (No.)	3	3	3	3	3	3
REFRIGERANT				"Freon-22"		
Type	28	28	40	28	28	28
Charge (oz.)						
BLOWER				Yes	Opt.	No
Own	1	1	1		1	Yes
Number	800	800	1200	1000		1000
C.f.m.					Variable	Variable
R.p.m.			388 Variable	Vari.		
CONTROLS						
Temperature						
Damper						
AIR FILTER						
Number	1	1	1	1		
Type	Disposable				Dis.	
Dimensions (in.)	16x25	16x25	20x25	16x25		20x25
HEATING				A models, gas; O, oil		
NET WEIGHT (lbs.)				Varies by type of unit	380, 325	300
SPECIAL FEATURES					370	370

*Also available in air-cooled, fin-tube, remote models. †Counterflow type, directs discharge air downward. 126½ oz. on model 220A.

Self-Contained Home Cooling Systems**Luxaire**

(Cont.)

Model No.	320W	H320W	310W	R320A	510W	R330A
DIMENSIONS (In Inches)						
Height	49	65½	50	32½	50	32½
Width	18	18	22	42	42	31
Depth	29	29	23	23	23	23
COMPRESSOR				Sealed		
Type	3	3	4	3	6	2
Cylinders	1%	1%	1%	1%	1%	1%
Bore (in.)	2-7/32	2-7/32	2-7/32	2-7/32	2-7/32	2-7/32
Stroke (in.)	1725	1725	1725	1725	1725	1725
R.p.m.	1 (2)	1 (2)	1 (2)	1 (2)	1 (2)	1 (2)
Make			York			
Hp.	(2) 1½	(2) 1½	(1) 3	(2) 1½	(1) 5	(2) 1
Cooling method			Gas			
COMPRESSOR MOTOR				Sealed		
Phase	1	1	3	1	1	1
Cycle	60	60	60	60	60	60
Volts	230 or 208	230-208	220	230-208	230-208-220	230, 208
CONDENSER				Shell & Tube	Fin Coil	Shell & Tube
Type				Water	Air	Water
Cooling medium						
EVAPORATOR						
Face area (sq. ft.)	3.82	3.82	3.55	3.82	5.93	...
Rows (No.)	3	3	3	3	3	3
REFRIGERANT				"Freon-22"		
Type	40	40	78	78	106	...
Charge (oz.)						
BLOWER				Opt.	1	Opt.
Number				C.f.m.	1200	2000
C.f.m.				R.p.m.		Var.
R.p.m.						
AIR FILTER					1	1
Number				Type	Disposable	...
Type				Dimensions (in.)	25x25 13x22½	...
Dimensions (in.)						13x37
HEATING					No	
NET WEIGHT (lbs.)					370	440
SPECIAL FEATURES					550	550

Mitchell

Mitchell Mfg. Co., 2525 Clybourn Ave., Chicago 14, Ill.

C-200 C-300
CA-200 CA-300

DIMENSIONS (In In.)	Height	Width	Depth
Height	66½	66½	...
Width	31½	31½	...
Depth	24	24	24

COMPRESSOR	Type	Hermetic
Cylinders	2	2
Bore (in.)	1.75	2
Stroke (in.)	1.2	1.2
R.p.m.	2	3
Cooling method	Refrigerant	

COMPRESSOR MOTOR	Phase	1 & 3
Cycle	60	60
Volts	230/208-220	

CONDENSER	Type*	Cleanable
Self-contained/remote	Self-contained	Self-contained
Cooling medium	Water(C)	Air(CA)

EVAPORATOR	Face area (sq. ft.)	3.06	3.06
Rows (No.)	3	4	

REFRIGERANT	Type	"Freon-22"
Charge (lbs.)*	4.75	5.75

BLOWER	Own	Available
No.	1	1
C.f.m.	800	1200

AIR FILTER	No.	1	1
Type		Replaceable	20x22x1

HEATING	Steam, hot water coil available
SHIPPING WEIGHT (lbs.)	440 465

*For water cooled only. Data not given for air cooled.

Airline

Ingersoll Conditioned Air Div., Borg-Warner Corp., 760 E. Vine St., Kalamazoo, Mich.

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Monerief

Henry Furnace Co., Medina, Ohio

Model No.	2A100*	2HC100†	3A140*	230A*	221W	H221W
DIMENSIONS (In Inches)						
Height	63	73	66	52	49	65½
Width	36½	36½	44½	31	18	18
Depth	26	26	29	23	29	29
COMPRESSOR						
Type			Sealed			
Cylinders	2	2	3	2	2	2
Bore (in.)	1½	1½	1½	1½	1½	1½
Stroke (in.)	2-7/32	2-7/32	2-7/32	2-7/32	2-7/32	2-7/32
R.p.m.	1725	1725	1725	1725	1725	1725
Make			York			
H.P.	1 (2)	1 (2)	1½ (2)	1 (2)	1 (2)	1 (2)
Cooling method			Refrigerant			
COMPRESSOR MOTOR						
Phase	1	1	1	1	1	1
Cycle	60	60	60	60	60	60
Volts	230/208	230/208	230/208	230/208	230/208	230/208
CONDENSER						
Type			Shell & Tube			
Self-contained or remote			Self-contained			
Cooling medium			Water			
EVAPORATOR						
Face area (sq. ft.)	2.60	2.60	3.82	2.60	2.60	2.60
Rows (No.)	3	3	3	3	3	3
REFRIGERANT						
Type			"Freon-22"			
Charge (oz.)	28	28	40	28	28	28
BLOWER						
Own		Yes		Opt.	No	Yes
Number	1	1	1		1	
C.f.m.	800	800	1200	1000	1000	Variable
R.p.m.		888 Variable		Vari.		Variable
CONTROLS						
Temperature		Yes				
Damper		Yes				
AIR FILTER						
Number	1	1	1	1	1	1
Type			Disposable			Dis.
Dimensions (in.)	16x25	16x25	20x25	16x25	20x25	
HEATING						
A models, gas; O, oil						
NET WEIGHT (lbs.)						
Varies by type of unit	380	325	300	370		
SPECIAL FEATURES						
*Also available in air-cooled, fin-tube, remote models. †Counterflow type, directs discharge air downward. 428 oz. on model 220A.						

Monerief

(Cont.)

Model No.	320W	H320W	310W	R320A	510W	R220A
DIMENSIONS (In Inches)						
Height	49	65½	50	32½	50	32½
Width	18	18	32	42	42	31
Depth	29	29	23	23	23	23
COMPRESSOR						
Type			Sealed			
Cylinders	3	3	4	3	6	2
Bore (in.)	1½	1½	1½	1½	1½	...
Stroke (in.)	2-7/32	2-7/32	2-7/32	2-7/32	13/16	...
R.p.m.	1725	1725	1725	1725	1725	1725
Make			York			
H.P.	(2) 1½	(2) 1½	(1) 3	(2) 1½	(1) 5	(2) 1
Cooling method			Gas			
COMPRESSOR MOTOR						
Phase	1	1	3	1	1.3	1
Cycle	60	60	60	60	60	60
Volts	230 or 208	230-208	220	230-208	230-208-220	230, 208
CONDENSER						
Type		Shell & Tube		Fin Coll	Shell & Tube	Fin Coll
Cooling medium		Water		Air	Water	Air
EVAPORATOR						
Face area (sq. ft.)	3.82	3.82	3.55	3.82	5.98	...
Rows (No.)	9	3	3	3	3	3
REFRIGERANT						
Type			"Freon-22"			
Charge (oz.)	40	40	78	78	106	...
BLOWER						
Number	Opt. 1200	1	Opt. 1200	1200	2000	Opt. ...
C.f.m.	1200	1200	1200	1200	2000	Var.
R.p.m.		Variable				
AIR FILTER						
Number	1	1	1	1	1	1
Type		Disposable		Dis.		...
Dimensions (in.)	25x25	18x22½	...	18x37	...	
HEATING						
No.	370	440	550	385	730	320
NET WEIGHT (lbs.)						

SCHNACKE Thermatrol WATER CHILLERS

—completely packaged line . . . 10 through 60 tons!

Eliminate Costly Field Assembly!

All components in one low-cost single unit—motor, starter, full Freon charge, Thermatrol capacity regulator—everything! Thermatrol package chillers are available in sizes from 10 to 60 tons, at 35° and 40° in standard models. The "S" line offers specification design to meet any requirement, easily selected to fit the job. Ideal for multi-zone construction and year around systems. One order does the job! Write for engineering data.

SCHNACKE, INC.

1105 Governor St.

Evansville, Ind.

General Air Conditioning

General Air Conditioning Corp., 4542 E. Durham St., Los Angeles 23, Calif.

Model No.	FL-2	RO-26	RO-31
DIMENSIONS (In In.)			
Height	43½	34½	37½
Width	30	30	30
Depth	21	21	23
COMPRESSOR			
Type		Hermetic	
Make	Tecumseh		
H.P.	2	2	2
Cooling method		Air	
COMPRESSOR MOTOR			
Phase	1	1	1
Volts	220	220	220
CONDENSER			
Type		Fin & Tube	
Self-contained/remote		Self-contained	
Cooling medium		Air	
REFRIGERANT			
Type		"Freon-22"	
BLOWER			
Number	2	2	2
C.f.m.	900	1000	1500
CONTROLS			
Temperature		Yes	
Damper		Yes	
AIR FILTER			
Type		Permanent	
Dimensions (in.)	9x30	9x30	12x30
HEATING			
		No	
NET WEIGHT (lbs.)			
	325	325	375

Forston, Lincoln

The Forston Co., 1400 Conti St., Houston 2, Texas

Model No.	204CP	204CR	304P	304CR

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Self-Contained Home Cooling Systems

Rheem

Rheem Mfg. Co., 7600 S. Kedzie Ave., Chicago 29, Ill.

Model No. 3103-150 3103-200 3103-300 3150-2 3150-3 3170-2 3170-3

DIMENSIONS (In In.)

Height	62 $\frac{1}{2}$	65%	65%	60%	60%	21	21
Width	25 $\frac{1}{2}$	46 $\frac{1}{2}$	48 $\frac{1}{2}$	20%	20%	42%	42%
Depth	29 $\frac{1}{2}$	28 $\frac{1}{2}$	28 $\frac{1}{2}$	28%	28%	24%	24%

COMPRESSOR

Type	2	2	2	2	2	2	2
Cylinders	2	2	2	2	2	2	2
Bore (in.)	1 $\frac{3}{4}$	2	1 $\frac{1}{2}$	3	1 $\frac{1}{2}$	2	2
Stroke (in.)	1.2	1.2	1.2	1.2	1.2	1.2	1.2
R.p.m.	1725	1725	1725	1725	1725	1725	1725
Make	Tecumseh	Tecumseh	Frigidaire	Frigidaire	Frigidaire	Frigidaire	Frigidaire
Hp.	2	2	2	2	2	2	2
Cooling method	Gas cooled	Gas cooled	Gas cooled	Gas cooled	Gas cooled	Gas cooled	Gas cooled

COMPRESSOR MOTOR

Phase	1	1	1	1	1	1	1
Cycle	60	60	60	60	60	60	60
Volts	230	230	230	230	230	230	230

CONDENSER

Self-contained or remote	Either	Water or Air	Water or Air
Cooling medium	Water	Air	Air

EVAPORATOR

Face area (sq. ft.)	1.68	2.24	3.05	2.24	3.05	2.24	3.05
Rows (No.)	3	3	3	3	3	3	3

REFRIGERANT

Type	"Freon-22"						
Charge (lbs.)	2.5	2.7	3.0	2.7	3.0	2.7	3.0

BLOWER

Own.	—	Yes	—	—	—	—	—
Number	1	1	1	1	1	1	1
C.f.m.	610	800	1200	800	1200	800	1200
R.p.m.	715	650	670	650	670	650	670

CONTROLS

Temperature	—	Yes	—	—	—	—	—
Damper	—	Yes	—	—	—	—	—

AIR FILTER

Number	1	2	2	1	1	—	—
Type	Glass	Fiber	—	—	—	—	—
Dimensions	20x25x1	14x25x1	14x25x1	20x25x1	20x25x1	—	—

HEATING

Gas	—	—	—	—	—	—	—
-----	---	---	---	---	---	---	---

NET WEIGHT (lbs.)

545	760	790	200	235	170	205	—
-----	-----	-----	-----	-----	-----	-----	---

SPECIAL FEATURES

Model 3103-150, automatic zone control. Models 3170-2 and 3170-3 can be used with counterflow furnace.

Deleo Conditionair

Deleo Appliance Div., General Motors Corp., 391 Lyell Ave., Rochester 1, N. Y.

Model No. OPC75HC2 OPC75HC3 GVC75HC2 GVC75HC3

DIMENSIONS (In In.)

Height	71 $\frac{1}{2}$	71 $\frac{1}{2}$	71 $\frac{1}{2}$	71 $\frac{1}{2}$
Width	46	46	46	46
Depth	25	25	25	25

COMPRESSOR

Type	Sealed Reciprocating	Sealed Reciprocating	Sealed Reciprocating	Sealed Reciprocating
Cylinders	3	2	2	2
Bore (in.)	1-15/16	2 $\frac{1}{2}$	2 $\frac{1}{2}$	2 $\frac{1}{2}$
Stroke (in.)	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$
R.p.m.	1725	1725	1725	1725
Make	Frigidaire	Frigidaire	Frigidaire	Frigidaire
Hp.	2	3	3	3
Cooling method	Gas cooled	Gas cooled	Gas cooled	Gas cooled

COMPRESSOR MOTOR

Phase	1 or 3	1 or 3	1 or 3	1 or 3
Cycle	60	60	60	60
Volts	230 single phase	208 or 220 3-phase	208 or 220 3-phase	208 or 220 3-phase

CONDENSER

Type	Shell and finned tube	Self-contained/remote	Self-contained	Tube in tube
Cooling medium	Water	Water	Water	Water

EVAPORATOR

Face area (sq. ft.)	1.79	1.79	1.79	1.79
Rows (No.)	4	4	4	4

REFRIGERANT

Type	"Freon-12"	"Freon-12"	"Freon-12"	"Freon-12"
Charge (lbs.)	6 $\frac{1}{2}$	7	7	7

BLOWER

Own.	Yes	Yes	Yes	Yes
Number	1	1	1	1
C.f.m.	850, 915	850, 915	850, 915	850, 915
R.p.m.	1020	1020	1020	1020

CONTROLS

Temperature	Yes	Yes	Yes	Yes
Damper	Yes	Yes	Yes	Yes

AIR FILTER

Number	2	2	2	2
Type	Throwaway	Throwaway	Throwaway	Throwaway
Dimensions	20x16	20x16	20x16	20x16

HEATING

Oil, Gas	Oil, Gas	Oil, Gas	Oil, Gas
----------	----------	----------	----------

NET WEIGHT (lbs.)

834	762	914	862
-----	-----	-----	-----

SPECIAL FEATURES

Heating can be installed and either 2 or 3 tons of cooling added later without disturbing ductwork.

Janitrol

Janitrol Heating & Air Conditioning Div., Surface Combustion Corp.

400 Dublin Ave., Columbus, Ohio

Model No. SAC24- 45 SAC36- 45 SAC60- 45 SVW60S- 55 SHW24- 55 SHW36- 55

Height	60 $\frac{1}{2}$	60 $\frac{1}{2}$	60 $\frac{1}{2}$	60 $\frac{1}{2}$	22%	22%
Width	26 $\frac{1}{2}$	26 $\frac{1}{2}$	40 $\frac{1}{2}$	40 $\frac{1}{2}$	22%	22%
Depth	26	26	26	26	44	44

COMPRESSOR

Type	Sealed	Sealed	Sealed	Sealed
Cylinders	2	2	4	2
Bore (in.)	1 $\frac{3}{4}$	1 $\frac{3}{4}$	1 $\frac{3}{4}$	1 $\frac{3}{4}$
Stroke (in.)	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$
R.p.m.	1725	1725	1725	1725
Make	Frigidaire	Frigidaire	Tecumseh	Tecumseh
Hp.	2	3	5	2
Cooling method	Gas cooled	Refrigerant	Refrigerant	Refrigerant

COMPRESSOR MOTOR

Phase	1 or 3	1 or 3	1	1
Cycle	60	60	60	60
Volts	230-220	230-220	230-220	230-220

CONDENSER

Type	Self-contained or remote	Self-contained	Tube in tube
Cooling method	Water	Water	Water

EVAPORATOR

Face area (sq. ft.)	2.12	2.53	4.15	4.15
Rows (No.)	3	4	4	4

REFRIGERANT

Type	"Freon-22"	"Freon-22"	"Freon-22"	"Freon-22"
Charge (oz.)	43	47	82	43

BLOWER

Own.	Yes	Yes	Yes	No
Number	1	1	1	1
C.f.m.	800	1200	2000	2000
R.p.m.	790	875	900	900

CONTROLS

Temperature	Yes	Yes	Yes	No
Damper	Yes	Yes	Yes	No

Peerless Clima Twin, Clima-Twin-Zone & Clima-Twin-Aire

Peerless Furnace & Foundry, Inc., 1853 Ludlow, Indianapolis, Ind.

Model No.	HA- 1651	RA- 251	RA- 371	TWD- 2681	TWD- 3691	CWD- 2681	CWD- 3691	TWD- 6371
CABINET DIMENSIONS (In Inches)								
Height	19½	38½	38½	68½	68½	61½	61½	62½
Width	49½	31½	31½	26	26	26	26	42
Depth	29½	29½	29½	31½	31½	34	34	26
COMPRESSOR								
Type				Hermetic				
Cylinders	2	2	2	2	2	2	(2) 2	
Bore (in.)	1.5	1.75	2	1.2	1.2	1.2	1.2	1.2
Stroke (in.)	1.01	1.2	1.2	1.75	2	1.75	2	1.75
R.p.m.	1725	1725	1725	1725	1725	1725	1725	1725
Make				Tecumseh				
Hp.	1½	2	3	2	3	2	3	5 (2 & 3)
Cooling method		Air		Water				
COMPRESSOR MOTOR								
Phase	1	1	1	1	1	1	1	1
Cycle	60	60	60	60	60	60	60	60
Volts	230	230	230	230	230	230	230	230
CONDENSER								
Type		Cross Fin		Spiral wound inner fin				
Self-contained or remote	Self-cont.	Remote		Self-contained				
Cooling medium		Air		Water				
EVAPORATOR								
Face area (sq. ft.)	1.94	2.11	2.53	2.11	2.53	2.11	2.53	4.12
Rows (No.)	3	3	4	3	4	3	4	4
REFRIGERANT								
Type				"Freon-22"				
Charge (oz.)				43	47	43	47	82
BLOWER								
Own	Yes	No	No			Yes		
Number	1			1	1	1	1	
C.f.m.	600			800	1200	800	1200	1200
CONTROLS								
Temperature				Yes				
Damper				Yes				
AIR FILTER								
Number				1	1	1	1	2
Type				Replaceable				
Dimensions (in.)				20x25	20x25	20x25	20x25	16x25
SPECIAL FEATURES								
Mor-Sun								
Morrison Steel Products, Inc. 601 Amherst St., Buffalo 7, N. Y.								
Model No.	2 Ton	3 Ton	5 Ton					
DIMENSIONS (In In.)								
Height	66½	66½	66½					
Width	26	26	26					
Depth	26	26	26					
COMPRESSOR								
Type		Hermetic						
Cylinders	2	2	4					
R.p.m.	1725	1725	1725					
Make		Tecumseh						
Cooling method		Suction						
COMPRESSOR MOTOR								
Phase	1	1	3					
Cycle	60	60	60					
Volts	230	230	230					
CONDENSER								
Type		Counterflow						
Self-contained/remote		Self-contained						
EVAPORATOR								
Face area (sq. ft.)	2.25	2.25	3.5					
Rows (No.)	3	4	5					
REFRIGERANT								
Type		"Freon-22"						
Charge (lbs.)	4	5	10					
BLOWER								
Own		Yes						
Number	1	1	1					
C.f.m.	800-900	1200-1350	2000-2400	Variable				
R.p.m.								
CONTROLS								
Temperature		Yes						
AIR FILTER								
Number	2	2	2					
Dimensions (½ in.)	18x16	18x16	18x16					
HEATING		No						
NET WEIGHT (lbs.)	385	405	545					



ANCO Condenser Cleaner

This exclusive dry formula dissolved in the sump removes scale and rust and restores normal operating efficiency in a few hours without harm to any metal surfaces.



Keep Cooling Towers Clean with
ANCO ALGAECIDE



Keep Scale from Forming with
ANCO WATER TREATMENT

See Your Wholesaler or Write Direct



Anderson Chemical Company
BOX 1424 • MACON, GEORGIA

Air-O-MaticEureka Williams Co. (Div. of Henney Motor Co., Inc.),
Bloomington, Ill.

Model No. AER-24 AER-36 AER-60

CABINET DIMENSIONS (In Inches)Height 47 47 51
Width 37 37 46
Depth 21 21 29**COMPRESSOR**Type Semi-hermetic
Cylinders 2 2 2
Bore (in.) 2 2 2½
Stroke (in.) 1-5/32 1-7/16 1-13/16
R.p.m. 1750 1750 1750
Make Copeland
Hp. 2 3 5
Cooling medium Water Water & Suction Gas**COMPRESSOR MOTOR**Phase Single Single & three
Cycle 60 60 60
Volts 230 230, 208-220**CONDENSER**Type Counterflow
Self-contained
Cooling medium Water**EVAPORATOR**Face area (sq. ft.) 2 2 3.17
Rows (No.) 4 4 4**REFRIGERANT**Type "Freon-12"
Charge (lbs.) 4 5 8**BLOWER**Own Yes, Optional
Number 1 1 1
C.f.m. 900 1200 2000
R.p.m. Variable**CONTROLS**Temperature Yes
Damper No**AIR FILTER**Number 1 1 1
Type Throwaway
Dimensions 16x24x1 16x24x1 24x24x2**HEATING**

No

NET WEIGHT (lbs.)

560 610 850

Mueller Climatrol announces a new Combination Year-round Air Conditioner

Lets you cash in on
the growing demand
for all-season comfort
...two ways:</

Servel

Servel, Inc., Evansville, Ind.

Model No.	DC-96-G ER-72-EG	DE-144-G DE-96-G
DIMENSIONS (In In.)		
Height	74½	73½
Width	27½	51%
Depth	46	51
COMPRESSOR		
Type	Absorption	
Cooling method	Water Cooled	
REFRIGERANT		
Type	Water	

BLOWER	Own Number	No	1	1	1	1
C.f.m.	800	1200	2000	2000		
CONTROLS			Yes			
Temperature			Yes			
Damper			Yes			
AIR FILTER				6	6	
Number	1	2	Throwaway			
Type	25x20	25x20	(2)20x20	(2)20x20		
Dimensions			(4)10x20	(4)10x20		
NET WEIGHT (lbs.)	800	1725	2800	2485		

ColumbiaColumbia Specialty Co., Inc.
4025 Bradley Blvd., Chevy Chase 15, Md.

Model No.	2TAC	3TAC	2TWC	3TWC
DIMENSIONS (In In.)				
Height	64	66½	64	66½
Width	17½	22	17½	22
Depth	27½	31½	27½	31½
COMPRESSOR				
Type	Hermetic			
Cylinders	2	2	2	2
Bore (in.)	1½	2	1½	2
Stroke (in.)	1.2	1.2	1.2	1.2
Make	Tecumseh			
Hp.	2	3	2	3
Cooling method	Air		Water	
COMPRESSOR MOTOR				
Phase	1	1	1	1
Cycle	60	60	60	60
Volts	230	230	230	230
CONDENSER				
Self-contained/remote	—Remote		Self-contained	
Cooling medium	Air		Water	
EVAPORATOR				
Rows (No.)	2	2	2	2
REFRIGERANT				
Type	"Freon-22"			
BLOWER				
C.f.m.	760	1120	760	1120
CONTROLS				
Temperature	Yes			
AIR FILTER				
Number	1	1	1	1
Type	Throwaway			
Dimensions	16x25	20x25	16x25	20x25
SHIPPING WEIGHT (lbs.)	480	560	325	375

Weathertrol

Therm Air Mfg. Co., 230 Goffle Rd., Hawthorne, N. J.

Model No.	W2t	W3t	W5t
CABINET DIMENSIONS (In Inches)			
Height	47	47	56
Width	31	31	42
Depth	23	23	28
COMPRESSOR			
Type	Hermetic		
Cylinders	2	2	4
Make	Tecumseh		
Hp.	2	3	5
Cooling method	"Freon-22"		
COMPRESSOR MOTOR			
Phase	Single and three phase		
Cycle	60	60	60
Volts	230	230	230
CONDENSER			
Type	Shell and tube		
Self-contained or remote	Self-contained		
Cooling medium	Water		
REFRIGERANT			
Type	"Freon-22"		
BLOWER			
Own	Yes		
Number	1	1	2
C.f.m.	800	1200	2000
R.p.m.	1725	1725	1725
CONTROLS			
Temperature	Yes		
Damper	No		
AIR FILTER			
Type	Replaceable		
Dimensions (1 in. thick)	20x25	20x25	2-16x20
HEATING			
Companion warm air furnace			
NET WEIGHT (lbs.)	350	450	700

MINIMUM VIBRATION**MAXIMUM QUIETNESS**

Added strength of mounting bracket provides more than adequate motor support, insures pulley alignment and reduces bearing wear during use.


 Double 16 gage Mounting Bracket.
 Full width welded U-Channel.
 Lock seamed end supports give blower wheel the strength needed to permit it to reach its destination point in tip-top condition. The end support principle and Vikromatic Balancing make these units so quiet they have amazed everyone.

"Dealers Applaud the Whisper Quiet Design of Viking's New BLOWER ASSEMBLIES"

reports Dave Ahern, Viking's New England Representative

Check These Enthusiastic Reactions


 "Yes, they're all you claim. I'm convinced that you've come up with a blower assembly that meets the home-owner's demands. Our dealers can be confident that the families that buy furnaces and air conditioners with this blower in them won't be bothered with blower thumping or humming. And you've cut the motor installation job in half with this new Open-end Channel on the mounting bracket". That reaction from Armon Le Mere of Gray Supply Company in Springfield, Mass.

"Sure I like it. I like anything that reduces the time it takes me to make an installation. It's easy to see where the new foot design makes it possible for manufacturers to turn blower assembly installation into a production line job. The added strength gives insurance against shipping damage and reduces those vibrations that cause noisy operation". So says Fred Wiedersheim of Fred Wiedersheim in Springfield, Mass.

Note to Furnace and Air Conditioner Designers:

A request on your letterhead for Viking's "Blower Assembly Workbook" brings you all the information you need for ordering a sample blower for your unit. Write today.

Interchangeable with Viking Blowers now being installed. Contact your Viking Representative for full details!



Viking
Air Conditioning
DIVISION OF THE NATIONAL RADIATOR COMPANY
15601 Walworth Ave., Cleveland 2, Ohio

Viking Blower Packages

Viking Blower Assemblies

Viking Humidifiers

Other Viking Products
Dehumidifiers
Attic Fans
Window Fans

Self-Contained Home Cooling Systems**Curtis**

Curtis Mfg. Co., Refrigeration Div.
1905 Kienlen Ave., St. Louis 20, Mo.

Model No.	RP250	RP400	RPH250	RPH400
DIMENSIONS (In In.)				
Height	50	50	50	50
Width	40	40	40	40
Depth	25%	25%	25%	25%

COMPRESSOR	Open	Hermetic
Cylinders	2	2
Bore (in.)	2½	3
Stroke (in.)	2¼	2½
R.p.m.	835	665
Make	Curtis	Tecumseh
Hp.	2	3
Cooling method	Air	Refrigerant

COMPRESSOR MOTOR	1-3	1-3	1-3	1-3
Phase	60/50	60/50	60	60
Cycle	230/440	220/440	230	230

CONDENSER	Shell & Coil
Cooling medium	Water

EVAPORATOR	Face area (sq. ft.)	2.06	3.02	2.06	3.02
Rows (No.)	4	4	4	4	4

REFRIGERANT	"Freon-12"	"Freon-22"	
Charge (lbs.)	13	15	9

BLOWER	Yes
</tbl

Shana-Air

Shana Mfg., Inc., 188 W. Randolph, Chicago 1, Ill.

Model No.	SA-205E SA-355E	SA-305E SA-355E	SA-505R1 SA-505R3	SAAC-1505	SAAC-201	SAAC-301	SAAC-205HS SAAC-255HS	SAAC-355HS
CABINET DIMENSIONS (In Inches)								
Height	60	60	66	19½	38½	38½	60	60
Width	28	28	26	49½	29½	29½	28	28
Depth	22	22	26	29%	31%	31%	22	22
COMPRESSOR								
Type								
Make								
H.P.	2	3	5	1½	2	3	2	3
COMPRESSOR MOTOR								
Phase	1 & 3	1 & 3	1 & 3	1	1	1 & 3	1 & 3	
Cycle	60	60	60	60	60	60	60	
Volts	220	220	220	220	220	220	220	
CONDENSER								
Type	Cleanable							
Self-contained or remote	Self-contained							
Cooling medium	Water							
EVAPORATOR								
Face area (sq. ft.)	2.12	2.53	3.5	2	2.12	2.53	2.12	2.53
Rown (No.)	3	4	5	2	3	4	3	4
REFRIGERANT								
Type								
Charge (oz.)	48	48	160	38				
BLOWER								
Own	— Yes & No —			Yes				
Number	1	1	2		1	1	1	
C.f.m.	700-	1100-	2000-	600	800	1200	700-	1100-
R.p.m.	1000	1500	2400				1000	1500
CONTROLS								
Temperature				Yes				
Damper				No				
AIR FILTER								
Number	2	2	— Permanent —				2	2
Type			20x16				20x16	
Dimensions								
NET WEIGHT (lbs.)								
	423	450	595	370	388	410	500	525
SPECIAL FEATURES								
	Also make 24 models of combination heating and cooling units all in one package. These are made in 2 and 3-ton sizes, either air cooled or water cooled, using either gas or oil and in 85,000, 105,000, or 130,000 heating B.t.u. at bonnet capacities.							

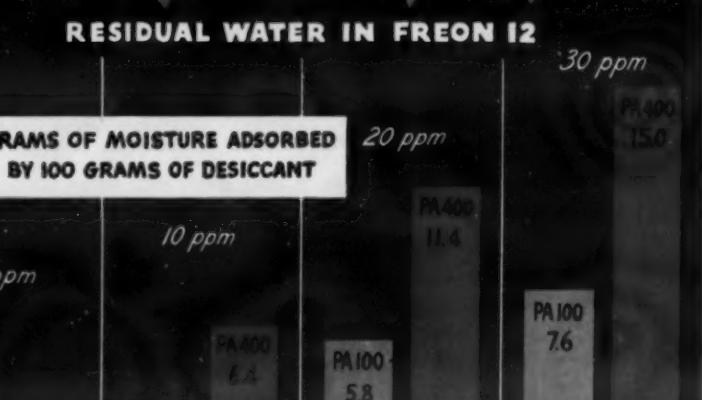
EmersonEmerson Radio & Photograph Corp.
111 Eighth Ave., New York 11, N. Y.

Model No.	RC2A2 & RC2A3 & RC2B2 & RC2B3 &	RC3A2 & RC3A3 RC3B2 & RC3B3	CONDENSER	Tube-in-Tube Self-contained/remote Cooling medium
			EVAPORATOR	Water
			Face area (sq. ft.)	3.95 3.35
			Rown (No.)	2 3
			REFRIGERANT	"Freon-22"
			Type	Charge (lbs.)
				2.5 3.0
			BLOWER	Own
			Number	Yes
			C.f.m.	1 1
			R.p.m.	800 1120
				600-875 600-870
			CONTROLS	Temperature
				No
				Damper
			AIR FILTER	Number
				1 1
			Type	Throwaway
			Dimensions	20x25x1
			HEATING	No
			NET WEIGHT (lbs.)	375 385

PA 400
DAVISON'S NEW Refrigeration Desiccant
WITH GREATER MOISTURE ADSORPTION CAPACITY
Up to 98% increase in moisture capacity

The Davison Chemical Corporation has long been a leading producer of refrigeration desiccants and the manufacturer of PA 100—the top desiccant in the field. Now, after many years of research, they have produced PA 400—a refrigeration desiccant with a greatly increased adsorption capacity.

Tests run on the moisture adsorption capacity of PA 400 in Freon-12 in comparison with Davison's PA 100 show up to 98% increase in capacity.



SEE YOUR
JOBER TODAY
OR WRITE...

Progress Through Chemistry
DAVISON CHEMICAL COMPANY
Division of W. R. Grace & Co.
Baltimore 3, Maryland

Producers of Catalysts, Inorganic Acids, Superphosphates, Triple Superphosphate, Phosphate Rock, Silica Gels and Silicofluorides. Sole Producers of DAVCO® Granulated Fertilizers.

*T.M. REG. APPLIED FOR

Self-Contained Home Cooling Systems**Penguin**

Penguin Corp., 12334 Stark Rd., Livonia, Mich.

Model No.	300W	300A	300AH	300AE
-----------	------	------	-------	-------

Dimensions (In Inches)	Height	Width	Depth
	61	61	72

COMPRESSOR	Type	Semi-Sealed
	Cylinders	2 2 2

R.p.m.	1725	1725	1725
		Copeland	

COMPRESSOR MOTOR	Type	1 1 1
	Cycle	60 60 60

Volts	240	240	240

CONDENSER	Type	Cleanable tube	Finned tube
	Self-contained or remote	Self-contained	Air & Condensate

EVAPORATOR	Type	Face area (sq. ft.)	3
	Rown (No.)	4	4

REFRIGERANT	Type	"Freon-22"
	Charge (lbs.)	3.5 3.5 3.5

BLOWER	Own	No
	Number	1 2 2 2

C.f.m.	1150	1150	1650
	</		

G-E

General Electric Co., Home Heating & Cooling Dept., 5 Lawrence St., Bloomfield, N. J.

Model No.	FE15J	FE20J	FE25J	FE30J	FE50J	FE15JH	FE20JH	FE25JH	FE30JH
CABINET DIMENSIONS (In Inches)	55	55	55	55	55	24	24	24	24
Height	55	55	55	55	55	24	24	24	24
Width	21	21	21	21	25	25	25	25	25
Depth	30	30	30	30	30	36	36	36	36
COMPRESSOR									
Type									
COMPRESSOR MOTOR									
Phase						1 & 3			
Cycle	60	60	60	60	60	60	60	60	60
Volts	230	230	230	230	230	230	230	230	230
CONDENSER									
Type						Water cooled (FE), Air cooled (FG)			
Self-contained or remote						Self-contained (FE), Remote (FG)			
REFRIGERANT									
Type						"Freon-12" or "Freon-22"			
BLOWER									
Own						Available			
Number	1	1	1	1	1	Yes	Available (JH), No (JD)		
CONTROLS									
Temperature						Yes			
Damper						Available			
HEATING						Gas and Oil-fired Heating available			
NET WEIGHT* (lbs.)	265	270	300	350	500	250	275	300	375
SPECIAL FEATURES						Upflow		Horizontal (JH), Downflow (JD)	

*Add 135-250 lbs. for (FG) air-cooled models.

Colette

Colette, Inc., 20080 James Couzens Hwy., Detroit 35, Mich.

Model No.	F2W	F3W	F5W	H4W2	H4W3	RV2W	RV3W	RV5W
CABINET DIMENSIONS (In Inches)	57½	57½	62½	21½	21½	40½	40½	40½
Height	25	25	34½	25%	25%	25	25	34
Width	21½	21½	24	41%	41%	21½	21½	24
Depth								
COMPRESSOR								
Type						Hermetic		
Cylinders	2	2	4	2	2	2	2	4
Bore (in.)	1½	2	1½	1½	2	1½	2	1½
Stroke (in.)	1.2	2.2	1.7/16	1.2	1.2	1.2	1.2	1.7/16
R.p.m.	1725	1725	1725	1725	1725	1725	1725	1725
Make						Tecumseh		
Hp.								
Cooling method						City water, cooling tower, or air		
COMPRESSOR MOTOR								
Type								
Cycle	60	60	60	60	60	60	60	60
Volts	220	220	220	220	220	220	220	220
CONDENSER						Single or three phase		
Type								
Self-contained or remote						Tube within a tube (cleanable) or finned coil with centrifugal fan		
Cooling medium						Either Water or air		
EVAPORATOR								
Face area (sq. ft.)	1.75	2.91	4.19	1.75	2.91	1.75	2.91	4.19
Rows (No.)	4	4	4	4	4	4	4	4
REFRIGERANT						"Freon-22"		
Type								
Charge (oz.)	43	47	84	43	47	43	47	84
BLOWER						No		
Own	1	1	1	...	...	...	...	...
Number	800	1200	2000	...	...	...	...	...
C.f.m.	816	780	637	...	...	...	...	...
R.p.m.								
CONTROLS						Yes, remote		
Temperature						No		
Damper								
AIR FILTER								
Number	1	1	2	...	...	1	1	2
Type						Cleanable		
Dimensions (1 in. thick)	20x20	20x20	25x16	...	...	20x20	20x20	25x16
HEATING						No		
NET WEIGHT (lbs.)	390	420	750	310	340	310	340	650



TUBE MANIFOLD LIQUID RECEIVERS Are Custom-Designed and Volume Produced

SHELL DIAMETERS — 2, 2½, 3, 3½, 4, 5 and 6 inches.

LENGTHS — 6 to 36 inches. Longer lengths if required.

FITTINGS — Any standard SAE ¼, ½, ¾ and 1½ inch inlet and outlet fittings.

BRACKETS — Horizontal, vertical and side mountings designed to specifications.

TESTING — Under water at 450 psi.

DEHYDRATION — Assures clean dry receivers.

FINISH — Baked on black enamel, standard. Bonderizing optional.

TUBE MANIFOLD CORPORATION

FABRICATORS OF TUBULAR PRODUCTS
1100 Military Road Buffalo 17, N. Y.

Self-Contained Home Cooling Systems

Heil

The Heil Co., 3000 W. Montana St., Milwaukee 1, Wis.

Model No.	AC-301	AC-301	ACB-301	ACB-301	CH-301	CH-301
DIMENSIONS (In Inches)	24½	24½	24½	24½	23½	23½
Height	53	53	53	53	50%	50%
Width	24½	24½	24½	24½	23½	23½
Depth	43½	43½	43½	43½	42½	42½

COMPRESSOR

Type	Hermetic	Hermetic	Hermetic	Hermetic
Cylinders	2	2	2	2
Make	Tecumseh	Tecumseh	Tecumseh	Tecumseh
Hp.	2	3	3	2
Cooling method	Refrigerant	Refrigerant	Refrigerant	Refrigerant

COMPRESSOR MOTOR

Phase	1	3	1	3	1	3	1	3
Cycle	60	60	60	60	60	60	60	60
Volts	230	230	230	230	230	230	230	230

CONDENSER

Type

Lennox

The Lennox Furnace Co., Marshalltown, Iowa

Model No.	CB11- 200	CB11- 300	CB11- 500	CB12- 400	CB12- 500	CB12- 600	CAB1- 300	CH2-2	CS2-2	CH2-3	CS2-3
CABINETS DIMENSIONS (In Inches)											
Height	60%	60%	64%	65%	65%	65%	57%	16%	20%	16%	20%
Width	22%	22%	28	36	36	36	49%	30%	24	30%	24
Depth	27%	27%	27%	27%	27%	27%	27%	34%	40%	34%	40%
COMPRESSOR							Hermetic				
Type							2 (2)	2 (2)	2	2	2
Cylinders	2	2	4	2 (2)			1%				
Bore (in.)	1%	2	1%	1%	2	2	2	1%	1%	2	2
Stroke (in.)	1.2	1.2	1.7/16	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
R.p.m.	1725	1725	1725	1725	1725	1725	1725	1725	1725	1725	1725
Make	Tecumseh						Tecumseh				
Hp.	2	3	5	2 (2)			2 (1)				
Cooling method							Suction				
COMPRESSOR MOTOR							1 & 3				
Phase							60				
Cycle								230/220/208			
Volts											
CONDENSER							Counterflow				
Type							Self-contained				
Self-contained or remote							Water				
Cooling medium							Air				
EVAPORATOR							Water				
Face area (sq. ft.)	1.96	2.94	4.46	3.92	4.90	...	...	1.84	1.68	2.75	2.54
Rows (No.)	3	3	4	3	3	3	3	4	4	4	4
REFRIGERANT							"Freon-22"				
Type							116	106	40	40	47
Charge (oz.)	45	58	112	90	103						
BLOWER							1-Evap.				
Own							1-Cond.				
Number	1	1	1	1	1	1	1200-Evap.				
C.f.m.	800	1200	2000	1600	2000	2400	2900-Cond.				
CONTROLS							No				
Temperature							Yes				

Sunbeam

Sunbeam Air Conditioner Div., American-Standard, Elyria, Ohio

Model No.	HCA-2	HCA-3	HCA-5	HCA-2H	HCA-3H	HCA-2F	HCA-3F	HCA-5F
CABINET DIMENSIONS (In Inches)								
Height	40%	40%	46%	23	23	65	65	68
Width	25	25	42	43%	43%	25	25	25
Depth	21%	21%	23%	23	23	27	27	33%
COMPRESSOR				Hermetic				
Type				2	2	2	2	6
Cylinders	2	2	6	1%	2	1%	2	1%
Bore (in.)	1%	2	1%	1%	2	1%	2	1%
Stroke (in.)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
R.p.m.	1750	1750	1750	1750	1750	1750	1750	1750
Make	Tecumseh	York	Tecumseh	Tecumseh	Tecumseh	Tecumseh	Tecumseh	York
Hp.	2	3	5	2	3	3	3	5
Cooling method								
COMPRESSOR MOTOR				Refrigerant				
Phase				1, 3	1, 3	1, 3	1, 3	1, 3
Cycle				60	60	60	60	60
Volts					230, 208/220			
CONDENSER				Tube within tube			Shell & Coil	
Type				Self-contained			Water	
Self-contained or remote								
Cooling medium								
EVAPORATOR								
Face area (sq. ft.)	2.11	2.44	5.98	2.11	2.53	2.11	2.44	5.98
Rows (No.)	3	4	3	3	4	3	4	3
REFRIGERANT				"Freon-22"				
Type				43	47	43	47	48
Charge (oz.)					106		106	
BLOWER				No			Yes	
Own								
Number							1	1
C.f.m.							800	1200
R.p.m.							935	825
CONTROLS				Optional			No	
Temperature								
Damper								
AIR FILTER				No			1	1
Number							20x25	20x25
Type								20x20
Dimensions (1 in. thick)								
NET WEIGHT (lbs.)	390	405	675	335	367	480	505	885
SPECIAL FEATURES							Muggy Weather Control	

Norman

Norman Products Co., 1150 Chesapeake Ave., Columbus 12, Ohio

Model No.	4WC-2	4WC-3	RAC-3
DIMENSIONS (In In.)			
Height	21%	21%	21%
Width	25%	25%	25%
Depth	41%	41%	41%
COMPRESSOR			
Type		Hermetic	
Cylinders	2	2	2
Make		Tecumseh	
Hp.	2	3	3
Cooling method		Refrigerant	
COMPRESSOR MOTOR			
Phase		1 or 3 Phase	
Cycle	60	60	60
Volts		208, 230, 220	
CONDENSER			
Type		Tube-in-Tube	
Self-contained/remote		Tube & Fin	
Cooling medium		Water	Air
EVAPORATOR			
Face area (sq. ft.)	1.79	2.9	2.9
Rows (No.)	4	4	4
REFRIGERANT			
Type		"F-22"	
Charge (oz.)	43	47	70
CONTROLS			
Temperature		Yes	
Damper		Optional	
Available:			
HEATING			
NET WEIGHT (lbs.)	298	342	600
SPECIAL FEATURES		Compact, Pre-wired	

Vornado

O. A. Sutton Corp., Wichita, Kan.

Model No.	B200A	CONDENSER
DIMENSIONS (In In.)		
Height	20%	Self-contained/remote . Self-contained
Width	39%	Cooling medium . Air
Depth	29%	
COMPRESSOR		
Type	Hermetic (2)	

LISTING Commercial Package Conditioners

Royal-Aire Unareo

Union Asbestos & Rubber Co., 332 S. Michigan Ave., Chicago 4, Ill.

Model No.	CUC	CUD	CUE	CUF	CUG
CABINET DIMENSIONS (In Inches)					
Height	77	85½	87½	87½	99½
Width	38	45½	55½	72	86
Depth	21½	25	29½	29½	29½
COMPRESSOR					
Type			Semi-Hermetic		
Cylinders	2	2	3	2 at 2	2 at 3
Bore (in.)	2½	2½	2½	2½	2½
Stroke (in.)	1-7/16	1-13/16	2	1-13/16	2
R.p.m.	1750	1750	1750	1750	1750
Make			Copeland		
Hp.	3	5	7½	2-5	2-7½
Cooling method			Water		
COMPRESSOR MOTOR					
Phase	1-3	1-3	3	3	3
Cycle	60	60	60	60	60
Volts	220	220	220	220	220
CONDENSER					
Type			Shell & Coil		
Cooling medium			Water		
EVAPORATOR					
Face area (sq. ft.)	2.8	4.5	6.4	8.5	13.5
Rows (No.)	5	5	4	4	4
REFRIGERANT					
Type			"Freon-12"		
Charge (lbs.)	12	15	19	20	38
BLOWERS					
Number	1	1	1	2	2
C.F.m.	1200	2000	3000	4000	6000
R.p.m.	780	640	590	640	590
BLOWER MOTOR					
Number	1	1	1	1	1
Hp.	½	½	¾	1	1½
AIR FILTER					
Number	1	1	2	3	3
Type			Permanent		
Dimensions (in.)	13½x30½	17½x38	20½x23	20½x20	26½x24½
HEATING					
Steam or Hot Water Coils					
NET WEIGHT (lbs.)					
NET WEIGHT (lbs.)	802	1050	1420	2125	2642
SPECIAL FEATURES					
Pump down control					

Janitrol

**Janitrol Heating & Air Conditioning Div.,
Surface Combustion Corp., 400 Dublin Ave., Columbus, Ohio**

	SACF 24-45	CACF 38-45	SACF 60-45	SVWF 60S-55
Model No.				
DIMENSIONS (In Inches)				
Height	88½	88½	88½	88½
Width	26½	26½	40½	40½
Depth	26	26	26	26
COMPRESSOR				
Type		Sealed		
Cylinders	2	2	2	4
Bore (in.)	1¾	2	1¾-2	1¾
Stroke(in.)	1.2	1.2	1.2-1.2	1-7/16
R.p.m.	1725	1725	1725	1725
Make		Tecumseh		
Hp.	2	3	2 & 3	5
Cooling method		Refrigerant		
COMPRESSOR MOTOR				
Phase		1 or 3 Phase		
Cycle	60	60	60	60
Volts		230/220		
CONDENSER				
Type		Tube in Tube		
Cooling medium		Water		
EVAPORATOR				
Face area (sq. ft.)	2.12	2.53	4.15	4.15
Rows (No.)	3	4	4	4
REFRIGERANT				
Type		"F-22"		
Charge (oz.)	43	47	47	82
BLOWERS				
No.	1	1	1	1
C.f.m.	800	1200	2000	2000
R.p.m.	790	875	900	900
BLOWER MOTOR				
No.	1	1	1	1
Hp.	¼	½	¾	¾
AIR FILTER				
No.	1	1	2	2
Type		Throwaway		
Dimensions (1 in.)	20x25	20x25	20x25	20x25
NET WEIGHT (approx.)	489	544	816*	751

Sunbeam

**Sunbeam Air Conditioner Div., American-Standard,
Elyria, Ohio**

Model No.	CCA-2	CCA-3	CCA-5
DIMENSIONS (In Inches)			
Height	82	82	88
Width	25	25	42
Depth	21½	21½	23½
COMPRESSOR			
Type		Hermetic	
Cylinders	2	2	6
Bore (in.)	1½	2	1½
Stroke (in.)	1.2	1.2	1-3/16
R.p.m.	1750	1750	1750
Make	—Tecumseh—		York
H.P.	2	3	5
Cooling method		Refrigerant	
COMPRESSOR MOTOR			
Phase	1-3	1-3	1-2-3
Cycle	60	60	60
Volts		230, 208/220	
CONDENSER			
Type	Tube within tube	Shell & Coil	
Cooling medium	Water		
EVAPORATOR			
Face area (sq. ft.)	2.11	2.53	5.93
Rows (No.)	3	4	3
REFRIGERANT			
Type		"F-22"	
Charge (oz.)	43	47	106
BLOWERS			
No.	1	1	1
C.f.m.	800	1200	2000
R.p.m.	768	880	830
BLOWER MOTOR			
No.	1	1	1
H.P.	½	½	½
AIR FILTER			
No.	1	1	1
Type		Replaceable	
Dimensions (1 in.)	18x21	18x21	16x37
NET WEIGHT (lbs.)	490	527	895
SPECIAL FEATURES			

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J. V. Patten Co., Sycamore, Ill.

Model No.	H-252	H-352	H-652	HA-352	HA-352
CABINET DIMENSIONS (In Inches)					
Height	52	52	60	52	52
Width	22	22	26	22	22
Depth	22	22	26	22	22
COMPRESSOR					
Type			Hermetic		
Cylinders	2	2	4	2	2
R.p.m.	1750	1750	1750	1750	1750
Make			Tecumseh		
Hp.	1½	2	5	2	3
Cooling method			Suction		
COMPRESSOR MOTOR					
Phase	1 or 3	1 or 3	1 or 3	1 or 3	1 or 3
Cycle	60	60	60	60	60
Volts	230	230	230	230	230
CONDENSER					
Type			Counterflow		
Cooling medium	Water		Air		
EVAPORATOR					
Face area (sq. ft.)	2.25	2.25	3.50	2.25	2.25
Rows (No.)	3	4	6	3	4
REFRIGERANT					
Type			"Freon-22"		
Charge (lbs.)	4	5	10	10	11
AIR FILTER					
HEATING					
NET WEIGHT (lbs.)	265	390	600	650	706

Shana-Air

Shana Mfg. Co., Inc., 188 W. Randolph St., Chicago 1, Ill.

	SAAC- 205HS	SAAC- 305HS	SAAC- 205HS	SAAC- 305HS
Model No.	SA205E SA255E	SA305E SA355E	SA505P1 SA505P3	SAAC- 235HS
CABINET DIMENSIONS (In Inches)				
Height	74	74	80	74
Width	28	28	26	28
Depth	22	22	26	22
COMPRESSOR				
Type			Hermetic	
Make			Tecumseh	
Hp.	2	3	5	2
COMPRESSOR MOTOR				
Phase	3 & 1	3 & 1	3 & 1	3 & 1
Cycle	60	60	60	60
Volts	220	220	220	220
CONDENSER				
Type			Cleanable	
Cooling medium		Water		Air
EVAPORATOR				
Face area (sq. ft.)	2.12	2.53	3.5	2.12
Rows (No.)	3	4	5	3
4				
REFRIGERANT				
Type			"Freon-22"	
Charge (oz.)	43	48	160	Holding
BLOWERS				
Number	1	1	1	1
C.f.m.	700-1000	1100-1500	2000-2400	700-1000
R.p.m.			Variable	1100-1500
BLOWER MOTOR				
Number	1	1	1	1
Hp.	1/2	1/2	1/2 & 1/2	1/2
AIR FILTER				
Number	1	1	2	1
Type			Permanent	1
Dimensions (in.)	20x25	20x25	20x16	20x25
NET WEIGHT (lbs.)	440	470	520	550

Bryant

Bryant Div., Carrier Corp., 17825 St. Clair Ave., Cleveland, Ohio

Model No.	2-570	3-570	5-570	7.5-570	10-570
CABINET DIMENSIONS (In Inches)					
Height	74%	74%	84%	94%	99%
Width	39	39	45%	48%	62%
Depth	23%	22%	28%	26	26
COMPRESSOR					
Type			Semi-Hermetic		
R.p.m.	1725	1725	1725	1725	1725
Make			Copeland		
H.P.	2	3	5	7.5	5 (2)
Cooling method			Water		
COMPRESSOR MOTOR					
Phase		1 & 3		3	3
Cycle	60	60	60	60	60
Volts	230-220	230-220	230-220	220	220
CONDENSER					
Type			Shell & Coil		
Cooling medium			Water		
REFRIGERANT					
Type			"Freon-12"		
BLOWERS					
Number	1	1	1	1	1
C.f.m.	800	1200	2000	3000	4000
BLOWER MOTOR					
Number	1	1	1	1	1
H.P.	1/4	1/4	1/2	1/4	1
AIR FILTER					
Type			Cleanable		
HEATING					
NET WEIGHT (lbs.)	540	575	900	1220	1550
			Steam & Hot Water		

Commercial Type Package Air Conditioners

Kauffman

Kauffman Air Conditioning Co., 4505 Olive St., St. Louis, Mo.	30	50	75	100	150
CABINET DIMENSIONS (In Inches)					
Height	66	72	72	75	94
Width	36	45	51	57	70
Depth	26	27	31	31	39
COMPRESSOR					
Type		Sealed			
R.p.m.	1725	1725	1725	1725	1725
Make	Tecumseh		Tecumseh		
Hp.	3	5	7½	2-5	2-7½
Cooling method			Water		
COMPRESSOR MOTOR					
Phase	1 or 3	1 or 3	3	3	3
Cycle	60	60	60	60	60
Volts	230	230	230	230	230
CONDENSER					
Type		Shell Tube			
Cooling medium		Water			
EVAPORATOR					
Face area (sq. ft.)	2.7	4.4	6.7	9.0	13.5
Rows (No.)			4 and 5		
REFRIGERANT					
Type		"Freon-12"			
Charge (lbs.)	11	13	16	26	32
BLOWERS					
Number	1	1	2	2	2
C.f.m.	1200	2000	3000	4000	6000
R.p.m.	650	650	700	750	750
BLOWER MOTOR					
Number	1	1	2	2	3
Hp.	½	½	½	½	¾
AIR FILTER					
Number	1	1	1	2	2
Type		Throwaway			
Dimensions (in.)	14x25	18x35	25x39	29x45	2-20x33
HEATING					
NET WEIGHT (lbs.)	750	925	1300	1750	2700

Worthington

Worthington Corp., Harrison, N.J.	SCY40	SCY60	SCY80	SCY1040	SCY1550
CABINET DIMENSIONS (In Inches)					
Height	82%	86	88½	98%	98%
Width	37½	48½	58	82½	82½
Depth	21½	21½	23½	31½	31½
COMPRESSOR					
Type		Hermetic			
Cylinders	3	3	3	(2) 3	(2) 3
Bore (in.)	1-15/16	1-15/16	2½	1-15/16	2½
Stroke (in.)	1-7/16	1-7/16	1½	1-7/16	1½
R.p.m.	1750	1750	1750	1750	1750
Make			Worthington		
Hp.	3	5	7½	10	15
Cooling method			Refrigerant		
CONDENSER					
Type		Shell-Coil			
Cooling medium		Water			
EVAPORATOR					
Face area (sq. ft.)	3.84	5.22	5.75	13.0	13.0
Rows (No.)	3	3	3	3	3
REFRIGERANT					
Type	"F-12"		"Freon-22"		
Charge (lbs.)	12	13	13	14	14
BLOWERS					
Number	1	1	1	1	1
C.f.m.	1200	2000	3000	4000	6000
R.p.m.	600	800	950	(2) 840	(2) 760
BLOWER MOTOR					
Number	1	1	1	1	1
Hp.	½	½	½	½	½
AIR FILTER					
Number	2	2	2	4	4
Type		Throwaway			
Dimensions (in.)	16x20x1	20x20x1	20x25x1	20x25x1	20x25x1
HEATING					
NET WEIGHT (lbs.)			Steam Coil		

Hupp Wattssaver

Hupp Corp., 1250 West 76th St., Cleveland 2, Ohio	2 Ton	3 Ton	3 Ton	3 Ton	6 Ton
CABINET DIMENSIONS (In Inches)					
Height	50	50	50	50	80
Width	22	22	22	22	26
Depth	22	22	22	22	26
COMPRESSOR					
Type		Hermetic			
Cylinders	2	2	2	2	4
R.p.m.	1725	1725	1725	1725	1725
Make		Tecumseh			
Cooling method		Suction			
COMPRESSOR MOTOR					
Phase	1	1 & 3	1 & 3	1 & 3	1 & 3
Cycle	60	60	60	60	60
Volts		115-230 three wire for all			
CONDENSER					
Type		Counterflow			
Cooling medium	Water	Water	Air	Air	Water
EVAPORATOR					
Face area (sq. ft.)	2.25	2.25	2.25	2.25	3.15
Rows (No.)	3	4	3	4	5
REFRIGERANT					
Type		"Freon-22"			
Charge (lbs.)	4	5	10	11	10
BLOWERS					
Number	1	1	1	1	1
C.f.m.	800-900	1200-1350	800-900	1200-1350	2000-2400
BLOWER MOTOR					
Number	1	1	1	1	1
AIR FILTER					
Number	1	1	1	1	2
Type		Permanent			
Dimensions (in.)	18x18	18x18	18x18	18x18	22x22
HEATING					
NET WEIGHT (lbs.)	365	390	650	706	600
SPECIAL FEATURES					
Installation package includes two copper tubes dehydrated and charged to capacity with quick disconnects on each end.					

Bonair

Bonair Products, Inc., 5th St. & Ellis Ave., Colwyn, Pa.					
EVAPORATOR					
Face area (sq. ft.)	1.88	2.78			
REFRIGERANT					
Type		"Freon-22"			
Charge (lbs.)		2 lbs.	2 lbs.		
		11 oz.	15 oz.		
BLOWERS					
No.		1	1		
C.f.m.		800	1200		
BLOWER MOTOR					
No.		1	1		
H.p.		¼	½		
AIR FILTER					

Koch

Koch Refrigerators, Inc., 401 Funston Rd.,
Kansas City 15, Kan.

Model No.	300	500	750
DIMENSIONS (In Inches)			
Height	72½	91	91
Width	32½	48	48
Depth	21½	27½	27½
COMPRESSOR			
Type	Hermetic	Semi-Hermetic	
Make	Tecumseh	Copeland	
H.P.	3	5	7½
Cooling method	Suction Gas	Water	Suction Gas
COMPRESSOR MOTOR			
Phase	1 & 3	1 & 3	3
Cycle	60	60	60
Volts	230	230, 208/220	208/220
CONDENSER			
Type	Cleanable	Shell & Tube	
Cooling medium	Water		
EVAPORATOR			
Face area (sq. ft.)	2.62	5.01	5.01
Rows (No.)	4	4	5
REFRIGERANT			
Type	"F-22"	"F-12"	
Charge (lbs.)	6	8	12
BLOWERS			
No.	1	1	1
C.f.m.	1200	2000	3000
R.p.m.	790	690	590
BLOWER MOTOR			
No.	1	1	1
H.p.	½	½	¼
AIR FILTER			
No.	1	2	2
Type	Cleanable		
Dimensions	16x25	20x25	
HEATING			
NET WEIGHT (lbs.)	590	1140	1300

Lennox

Lennox Furnace Co., Marshalltown, Iowa

Model No.	CU11200	CU11300	CU11500
DIMENSIONS (In Inches)			
Height	82	82	85½
Width	32½	32½	31½
Depth	20½	20½	27½
COMPRESSOR			
Type	Hermetic	Semi-Hermetic	
Make	Tecumseh	Copeland	
H.P.	3	5	7½
Cooling method	Suction Gas	Water	Suction Gas
COMPRESSOR MOTOR			
Phase	1 & 3	1 & 3	3
Cycle	60	60	60
Volts	230	230, 208/220	208/220
CONDENSER			
Type	Cleanable	Shell & Tube	
Cooling medium	Water		
EVAPORATOR			
Face area (sq. ft.)	2.62	5.01	5.01
Rows (No.)	4	4	5
REFRIGERANT			
Type	"F-22"	"F-12"	
Charge (lbs.)	6	8	12
BLOWERS			
No.	1	1	1
C.f.m.	1200	2000	3000
R.p.m.	790	690	590
BLOWER MOTOR			
No.	1	1	1
H.p.	½	½	¼
AIR FILTER			
No.	1	2	2
Type	Cleanable		
Dimensions	16x25	20x25	
HEATING			
NET WEIGHT (lbs.)	590	1140	1300

Alton

Alton Mfg. Co., 1112 Ross Ave., Dallas 2, Texas

Model No.	RE-10	RE-15	RE-20	RE-25	RE-30
CABINET DIMENSIONS (In Inches)					
Height	66	74	80	80	80
Width	96	121	129	129	149
Depth	36	49	49	49	49
COMPRESSOR					
Type	Open				
Cylinders	4	4	4	4	4
Bore (in.)	3¾	4¾	4¾	4¾	4¾
Stroke (in.)	2¾	3	5	5	5
R.p.m.	830	525	435	555	600
Make		Brunner			
H.p.	10	15	20	25	30
Cooling method	Forced Air				
COMPRESSOR MOTOR					
Phase	3	3	3	3	3
Cycle	60	60	60	60	60
Volts	220-440	220-440	220-440	220-440	220-440
CONDENSER					
Type	Evaporative built-in Water				
Cooling medium					
EVAPORATOR					
Face area (sq. ft.)	6.0	10.0	12.5	15.0	18.0
Rows (No.)	6	6	6	6	6
REFRIGERANT					
Type	"Freon-12"				
Charge (lbs.)	40	80	100	120	140
BLOWERS					
Number	2	2	2	2	2
C.f.m.	3600	5400	7200	9000	10,800
R.p.m.	360	670	586	640	710
BLOWER MOTOR					
Number	1	1	1	1	1
H.p.	1.5	2.0	2.0	3.0	5
AIR FILTER					
All filter plenums fitted onto unit externally					
HEATING					
NET WEIGHT (lbs.)	3900	4950	5500	6050	6500
SPECIAL FEATURES					
Built-in evaporative condenser; units complete with all controls.					

Majestic

Majestic Co., Inc., Erie St., Huntington, Ind.

Model No.	FU2M22	FU3M36	FU6M55	COMPRESSOR MOTOR
DIMENSIONS (In Inches)				
Height	78	78	89	Single
Width	22	26	55	60
Depth	22	26	30	60
COMPRESSOR				
Type	Hermetic			
Make	Tecumseh			
H.p.	2	3	6	
Cooling method	Water			
REFRIGERANT				
Type	"Freon"			
BLOWERS				
C.f.m.	800	1200	2400	
NET WEIGHT (lbs.)	588	603	1100	
SPECIAL FEATURES				
Wired with blower, motor, transformer, and thermostat.				

Gibson

Gibson Refrigerator Co., 515-615 West Williams St., Greenville, Mich.

Model No.	GK21A	GK31A	GK33A	GK51A	GK53A
CABINET DIMENSIONS (In Inches)					
Height	70½	70½	70½	70½	70½
Width	29½	29½	29½	29½	29½
Depth	25½	25½	25½	28½	28½
COMPRESSOR					

Colette

Colette, Inc., 20080 James Couzens Hwy., Detroit 35, Mich.

Model No. SC2W SC3W SC5W

DIMENSIONS (In Inches)

Height	70 $\frac{1}{2}$	70 $\frac{1}{2}$	77 $\frac{1}{2}$
Width	25	25	34
Depth	21 $\frac{1}{2}$	21 $\frac{1}{2}$	24
COMPRESSOR		Hermetic	
Type	2	2	3
Cylinders	2	2	3
Bore (in.)	1 $\frac{1}{2}$	2	1 $\frac{1}{2}$
Stroke (in.)	1.2	1.3	1 $\frac{7}{16}$
R.p.m.	1725	1725	1725
Make	Tecumseh	Tecumseh	Tecumseh
Hp.	3	3	5
Cooling method	Water	Water	Water

COMPRESSOR MOTOR

Phase	Single or 3 Phase
Cycle	60
Volts	230

CONDENSER

Type	Tube-in-Tube
Cooling medium	Water or Air

EVAPORATOR

Face area (sq. ft.)	1.75	2.91	4.19
Rows (No.)	4	4	4

REFRIGERANT

Type	"Freon-22"
Charge (lbs.)	43

BLOWERS

No.	1	1	1
C.f.m.	800	1200	2000
R.p.m.	816	780	637

BLOWER MOTOR

No.	1	1	1
Hp.	1/4	1/4	1/4
Dimensions	20x20x1	20x20x1	25x16x1

AIR FILTER

No.	1	1	2
Type	Cleanable		
Dimensions	20x20x1	20x20x1	25x16x1

NET WEIGHT (lbs.)

480 540 830

Servel

Servel, Inc., Evansville, Ind.

Model No.

DIMENSIONS (In Inches)

Height	75
Width	38
Depth	20 $\frac{1}{2}$

COMPRESSOR

Type	Semi-Hermetic
Cylinders	2
Bore (in.)	2 $\frac{1}{2}$
Stroke (in.)	1 $\frac{1}{2}$
R.p.m.	1725
Make	Servel
Hp.	3
Cooling method	Water

COMPRESSOR MOTOR

Phase	1-3
Cycle	60
Volts	230 208/220

CONDENSER

Type	Shell & Coil
Cooling medium	Water

EVAPORATOR

Face area (sq. ft.)	8.12
Rows (No.)	4

REFRIGERANT

Type	"F-12"
Charge (lbs.)	7

BLOWERS

No.	1
C.f.m.	1200
R.p.m.	747

BLOWER MOTOR

No.	1
Hp.	1/4
Dimensions	16x25

AIR FILTER

No.	1
Type	Throwaway
Dimensions (1 in.)	16x20(2)

HEATING

Optional—Steam &
Hot Water

NET WEIGHT (lbs.)

900 985 1400

Commercial Type Package Air Conditioners**Marvair**

Muncie Gear Works, Inc., 700 Wysor St., Muncie, Ind.

Model No. 402XF1A 403XF1A 405XA

DIMENSIONS (In Inches)

Height	78
Width	27 $\frac{1}{2}$
Depth	22

COMPRESSOR

Type	Hermetic
Cylinders	2
Bore (in.)	2 $\frac{1}{2}$
Stroke (in.)	1 $\frac{1}{2}$
R.p.m.	1725
Make	Tecumseh
Hp.	3
Cooling method	Air

COMPRESSOR MOTOR

Phase	1
Cycle	60
Volts	230 208/220

CONDENSER

Type	Shell & Tube
Cooling medium	Water

EVAPORATOR

Face area (sq. ft.)	1.4
Rows (No.)	4

REFRIGERANT

Type	"F-22"
Charge (lbs.)	2.8

BLOWERS

Air-O-MaticEureka Williams Co., Div. of Henney Motor Co., Inc.,
Bloomington, Ill.

Model No.	AEC-24	AEC-36	AEC-60
DIMENSIONS (In Inches)			
Height	64½	64½	72½
Width	37	37	46
Depth	21	21	29
COMPRESSOR			
Type	Semi-Hermetic		
Cylinders	2	2	2
Bore (in.)	2	2½	2½
Stroke (in.)	1-5/32	1-7/16	1-13/16
R.p.m.	1750	1750	1750
Make	Copeland		
Hp.	2	3	5
Cooling method	Water	Water	Water or Suction Gas
COMPRESSOR MOTOR			
Phase	1	1 & 3	1 & 3
Cycle	60	60	60
Volts	230	230, 208/230	230
CONDENSER			
Type	Counterflow Water		
Cooling medium	Water		
EVAPORATOR			
Face area (sq. ft.)	2	2	3.17
Rows (No.)	4	4	4
REFRIGERANT			
Type	'Freon-12'		
Charge (lbs.)	4	5	8
BLOWERS			
No.	1	1	1
C.f.m.	800	1200	2000
R.p.m.	Variable		
BLOWER MOTOR			
No.	1	1	1
Hp.	½	½	½
AIR FILTER			
No.	1	1	1
Type	Throwaway		
Dimensions	16x24x1	16x24x1	24x24x1
NET WEIGHT (lbs.)			
	560	610	850

G-EGeneral Electric Co., Commercial & Industrial Air Conditioning Dept.,
5 Lawrence St., Bloomfield, N. J.

Model No.	FD 30	FD 50	FD 75	FD 100	FD 150
CABINET DIMENSIONS (In Inches)					
Height	72	72	78	82½	79½
Width	34	45	45	55½	77½
Depth	21½	21½	22½	28½	28½
COMPRESSOR					
Type	Hermetic			(2)	(2)
Cylinders	2	3	3	3 each	3 each
Bore (in.)	2-1/16	2-1/16	2-1/16	2-1/16	2-1/16
Stroke (in.)	2-1/16	2-1/16	2-1/16	2-1/16	2-1/16
R.p.m.	1725	1725	1725	1725	1725
Make	General Electric				
Hp.	3	5	7½	5 each	7½ each
Cooling method	Gas				
COMPRESSOR MOTOR					
Phase	1, 2, 3	1, 2, 3	2, 3	2, 3	2, 3
Cycle	60	60	60	60	60
Volts	208/220, 230, 440		208/220, 440		
Also 550					
CONDENSER					
Type	Helical Copper Coil				
Cooling medium	Water				
EVAPORATOR					
Face area (sq. ft.)	2.95	5.13	6.20	10.3	15.40
Rows (No.)	3	3	4	3	3
REFRIGERANT					
Type	'Freon-12'			'F-22'	'F-12'
Charge (lbs.)	11	11	11	11 each	11 each
BLOWERS					
Number	1	2	2	2	2
C.f.m.	1200	2000	3000	4000	6000
R.p.m.	1725	1725	1725	1725	1725
BLOWER MOTOR					
Number	1	1	1	1	1
Hp.	½	½	¾	1½	2
AIR FILTER					
Number	2	2	4	4	6
Type	Throwaway				
Dimensions (1 in. thick)	16x20	20x25	(2) 16x25	25x16	16x25
HEATING					
			Steam Coil		
NET WEIGHT (lbs.)					
	553	665	900	1160	1550
SPECIAL FEATURES					
Models FD 30, FD 50, and FD 75—Muggy weather control. Models FD 100 and FD 150—Muggy weather control and capacity modulation.					

AFCO

American Furnace Co., 1300 Hampton Ave., St. Louis 10, Mo.

Model No.	B-VC-2A	B-VC-3A	B-VC-2T	B-VC-3T	B-VC-5T-2	B-VC-5T-1
DIMENSIONS (In Inches)						
Height	75	75	75	75	40½	40½
Width	28%	28%	28%	28%	42	42
Depth	25	25	25	25	26	26
COMPRESSOR						
Type	Hermetic			2	4	
Cylinders	2	2	2	2		
Bore (in.)	1½	2	1½	1-15/16	1½	1%
Stroke (in.)	1.2	1.2	1.2	1.2	1.2	1.2
R.p.m.	1725	1725	1725	1725	1725	1725
Make	Tecumseh					
Hp.	2	3	2	3	2 & 3	5
Cooling method	Refrigerant					
COMPRESSOR MOTOR						
Phase	1-3	1-3	1	1-3	1-3	1-3
Cycle	60	60	60	60	60	60
Volts	230-208-220	230	230	230-208-220	230-220	
CONDENSER						
Type	Fins & Tubes			Cleanable Water		
Cooling medium	Air					
EVAPORATOR						
Face area (sq. ft.)	2.11	2.53	2.11	2.53	4.15	4.15
Rows (No.)	3	4	3	4	4	4
REFRIGERANT						
Type	'Freon-22'			43	47	80
Charge (oz.)	59	78	43	47	80	80
BLOWERS						
Number	1	1	1	1	2	2
C.f.m.	800	1200	800	1200	2000	2000
R.p.m.	740	740	740	740	740	740
BLOWER MOTOR						
Number	1	1	1	1	1	1
Hp.	½	½	½	½	½	½
AIR FILTER						
Number	1	1	1	1	2	2
Type	Cleanable					
Dimensions (in.)	25x20	25x20	25x20	25x20	20x20	20x20
NET WEIGHT (lbs.)						

Coleman

The Coleman Co., Inc.,
250 N. St. Francis St., Wichita 1, Kan.

Model No. 6307 6308

DIMENSIONS (In In.)

Height 70½ 70½
Width 29½ 37½
Depth 25½ 27½

COMPRESSOR

Type Sealed

Cylinders 3 2 & 2

R.p.m. 1725 1725

Make Tecumseh

H.p. 3 3 & 2

Cooling method Suction

COMPRESSOR MOTOR

Phase 1 & 3

Cycle 60 60

Volts 230 230

CONDENSER

Type Shell & Coil

Cooling medium Water

EVAPORATOR

Face area (sq. ft.) 2.75 4.37

Rows (No.) 3 4

REFRIGERANT

Type "Freon-22"

Charge (lbs.) 6.5 7.5 & 7

BLOWERS

No. 1 1

C.f.m. 1200 1800

R.p.m. 700 825

BLOWER MOTOR

No. 1 1

H.p. ¼ ¼

AIR FILTER

No. 1 2

Type Throwaway

Dimensions (1 in.) 22x18 20x15

NET WEIGHT (lbs.) (Approx.) 500 770

Commercial Type Package Air Conditioners**Brunner (BAC)**

Brunner Mfg. Co., Utica 1, N. Y.

Model No. BAC-20 BAC-30 BAC-50 BAC-75 BAC-100 BAC-150 BAC-200

DIMENSIONS (In In.)

Height 76½ 79½ 87 95½ 99½ 98 93
Width 35½ 35½ 44½ 51½ 57 70 70
Depth 25½ 25½ 26½ 30½ 30½ 32 32

COMPRESSOR

Type Open

Cylinders 2 2 2 4 4 4 4

Bore (in.) 2½ 3½ 3½ 3½ 3½ 4½ 4½

Stroke (in.) 1½ 2½ 2½ 2½ 2½ 3 3

R.p.m. 850 510 825 620 825 560 730

H.p. 2 3 5 7½ 10 15 20

COMPRESSOR MOTOR

Type 1 & 3

Cycle 60 60 60 60 60 60 60

Volts 208-220 208-220 208-220 208-220 208-220 208-220 208-220

CONDENSER

Type Shell & Tube

Cooling medium Water

EVAPORATOR

Face area (sq. ft.) 1.8 2.7 4.4 6.7 9.0 13.5 13.5

Rows (No.) 5 5 5 5 5 5 6

REFRIGERANT

Type "Freon-12"

BLOWERS

C.f.m. 800 1200 2000 3000 4000 6000 8000

HEATING

Optional

NET WEIGHT (lbs.) (Approx.) 500 770

Airline

Ingersoll Conditioned Air Div., Borg-Warner Corp.,

760 E. Vine St., Kalamazoo, Mich.

Model No. A21BA* A31BA* A21UW A31UW A53XW
A23BA A33BA A23UW A33UW

DIMENSIONS (In In.)

Height 37½ 37½ 84 84 41
Width 24½ 24½ 24 24 32½
Depth 47½ 47½ 18½ 18½ 20%

COMPRESSOR

Type Sealed

Make Tecumseh

H.p. 2 3 2 3 Tecumseh

COMPRESSOR MOTOR

Type 1 & 3

Cycle 60 60 60 60 60

Volts 230, 220 230, 220 230, 220 230, 220

CONDENSER

Cooling medium

EVAPORATOR

Face area (sq. ft.) 1.75 1.75 4.19

Rows (No.) 4 4 4

REFRIGERANT

Type "Freon-22"

Charge (lbs.) 64 70

BLOWERS

No. 1 1 1

C.f.m. 800 1200 2000

BLOWER MOTOR

No. 1 1 1

H.p. ¼ ¼ ¼

SHIPPING WEIGHT

Also in remote units. 450 540 500

Governair

Governair Corp., 513 North Blackwelder, Oklahoma City, Okla.

Model No. 30 50 75 100 150

DIMENSIONS (In In.)

Height 70 70 70 75 78
Width 33 42 53 62 73
Depth 24 27 31 29 29

COMPRESSOR

Type Hermetic

Cylinders 2 2 3 2-2 2-3

Bore (in.) 2½ 2½ 2½ 2½ 2½

Stroke (in.) 1-7/16 1-13/16 2 1-13/16 2

R.p.m. 1750 1750 1750 1750 1750

Make Copeland

H.p. 3 5 7½ 2-5 2-7½

Cooling method Water

COMPRESSOR MOTOR

Type 3 3 3 3 3

Cycle 60 60 60 60 60

Volts 220-208 220-208 220-208 220-208 220-208

CONDENSER

Type Vertical Shell & Coil

Cooling medium Water & Air

EVAPORATOR

Face area (sq. ft.) 2.75 4.5 6.75 7.0 10.5

Rows (No.) 4 4 4 5 5

REFRIGERANT

Type "Freon-12"

Charge (lbs.) 13 11 16 12 17

BLOWERS

No. 1 2 2

C.f.m. 1215 2050 3035 4000 6000

R.p.m. 645 840 700 802 700

BLOWER MOTOR

No. 1 1 1 1 1

H.p. ¼ ¼ ¼ ¼ ¼

AIR FILTER

No. 1 2 2

Type Research

Dimensions (2 in.) 20x25 25x16 25x20 25x20 16x25

HEATING

Hot Water or Steam

NET WEIGHT (lbs.)

1000 1350 1900 2600 3200

Penguin

Penguin Corp., 12334 Stark Rd., Livonia, Mich.

Model No. 300CW 200CW 500CW

DIMENSIONS (In In.)

Height 78 78 78
Width 28 28 28
Depth 30 30 30

COMPRESSOR

Type Semi-Sealed

Cylinders 2 2 2

R.p.m. 1725 1725 1725

Make Copeland

H.p. 3 2 5

Cooling method Refrigerant

COMPRESSOR MOTOR

Type 1 or 3

Cycle 60 60 60

Volts 240 240 240

CONDENSER

Type Cleanable Tube

Cooling medium Water

EVAPORATOR

Face area (sq. ft.) 3 2 5

Rows (No.) 4 4 4

REFRIGERANT

Type "F-22"

Charge (lbs.) 3 6 5

BLOWERS

No. 1 1 1

C.f.m. 1150 750 2200

Commercial Type Package Air Conditioners

Melco

Melchior, Armstrong, Dessau Co. of Delaware, Inc.,
Ridgefield, N. J.

Model No.	MC36	MC56	MC81
DIMENSIONS (In In.)			
Height	83%	91%	91%
Width	36	42	42
Depth	23%	24%	24%
COMPRESSOR			
Type	Accessible Hermetic Copelametic		
Make	3	5	7½
H.P.			
COMPRESSOR MOTOR			
Phase	1-3	1-3	3
Cycle	60	60	60
Volts	230-208, 220	208, 220	
CONDENSER			
Type	Tube-in-Tube Water		
Cooling medium			
EVAPORATOR			
Face area (sq. ft.)	2.92	4.43	6.03
Rows (No.)	4	4	4
REFRIGERANT			
Type	'Freon-12'		
Charge (lbs.)	10	16	22
BLOWERS			
No.	1	1	1
C.F.M.	1200	2000	3000
BLOWER MOTOR			
No.	1	1	1
H.P.	¾	¾	¾
AIR FILTER			
No.	2	2	2
Type	Replaceable		
Dimensions (1 in.)	16x20	20x20	20x25
HEATING			
	Steam Coil		
NET WEIGHT* (lbs.)			
	740	1015	1110

*Less heating coil.

Clime-Matic

Clime-Matic Corp., Richards & Connecticut Aves., South Norwalk, Conn.

Model No.	SC200	SC265	SC350	SC550	SC825	SC1100
DIMENSIONS (In In.)						
Height	66	66	80	80	80	92
Width	30	30	35	43	52	63½
Depth	23%	23%	25	25	28½	28½
COMPRESSOR						
Type	Semi-Sealed					
Cylinders	2	2	2	3	2x2	
Bore (in.)	2	2	2½	2½	2½	
Stroke (in.)	1-5/32	1-5/32	1-7/16	1-13/16	2	1-13/16
R.P.M.	1725	1725	1725	1725	1725	
Make	Copelametic					
H.P.	2	2	3	5	7½	2x5
Cooling method	Water or Suction					
COMPRESSOR MOTOR						
Phase	1 or 3			3	3	
Cycle	60 or 50					
Volts	220-440					
CONDENSER						
Type	Shell & Coil			Tubular	Shell & Coil	
Cooling medium	Water					
EVAPORATOR						
Face area (sq. ft.)	2.23	2.23	3.11	4.47	6.82	8.94
Rows (No.)	3	5	4	4	4	2x4
REFRIGERANT						
Type	'Freon-12'					
Charge (lbs.)	12	12	12	15	18	2x15
BLOWERS						
No.	1	1	1	1	1	2
C.F.M.	1000	1200	1500	2500	3500	4500
R.P.M.	827	872	740	622	533	642
BLOWER MOTOR						
No.	1	1	1	1	1	1
H.P.	¼	¼	½	½	½	½
AIR FILTER						
No.	1	1	2	2	3	6
Type	Throwaway					
Dimensions (1 in.)	16x25	16x25	16x25	20x25	16x25	16x20
HEATING						
	Heater Coil					
NET WEIGHT (lbs.)						
	700	750	900	1000	1500	2100

Clime-Matic

(Cont.)

Model No.	SC1650	SC2003	SC2253	SC2502	SC3503	SC3002
DIMENSIONS (in.)						
Height	97½	70	70	84	84	84
Width	69½	87	87	108	108	108
Depth	32%	34	34	34	34	34
Depth (over-all)	...	53	53	...	...	...
COMPRESSOR						
Type	Semi-Sealed			Open	Semi-Sealed	Open
	1x2					
Cylinders	2x3	2x3	3x3	2x3	3x3	2x3
Bore (in.)	2½	2½	2%	4	2%	4
Stroke (in.)	2	1-13/16	2	4½	2	4½
R.P.M.	1725	1725	1725	400	1725	425
Make	Copelametic			Brunner	Cope.	Brunner
H.P.	2x7½	2x7½	8x7½	1x10	3x7½	2x15
Cooling method	Water or Suction			Air	Water or Suction	Air
COMPRESSOR MOTOR						
Phase	3	3	3	3	3	3
Cycle	60 or 50					
Volts	220-440					
CONDENSER						
Type	Tubular	Shell & Coil	Tubular	—	Shell & Tube	—
Cooling medium	Water					
EVAPORATOR						
Face area (sq. ft.)	13.64	16.04	18	20	20	24.5
Rows (No.)	2x4	4	4	4	6	4
REFRIGERANT						
Type	'Freon-12'					
Charge (lbs.)	2x18	1x15	3x18	1x20	3x18	2x30
BLOWERS						
Number	3	2	2	2	2	2
C.F.M.	6500	8000	9000	10000	10000	12000
R.P.M.	533	414	435	447	447	352
BLOWER MOTOR						
Number	1	1	1	1	1	1
H.P.	1%	1	3	3	3	5
AIR FILTER						
Number	6	8	8	10	10	10
Type	Throwaway					
Dimensions (in.)	20x30	20x20	4-20x25	20x20	20x20	20x25

Williamson

Williamson Heater Co., The,	
3500 Madison Rd., Cincinnati 8, Ohio	
Model No.	10-3402 10-3403
DIMENSIONS (In In.)	
Height	72 72
Width	21 21
Depth	18 18
COMPRESSOR	
Type	Hermetic
Make	Tecumseh
Hp.	2 3
Cooling method	Suction Gas
COMPRESSOR MOTOR	
Phase	1 1
Cycle	60 60
Volts	230 230
CONDENSER	
Type	Tube & Shell
Cooling medium	Water
REFRIGERANT	
Type	"Freon-22"
BLOWERS	
No.	1 1
C.f.m.	700 1000
BLOWER MOTOR	
No.	1 1
Hp.	1/4 1/4
AIR FILTER	
No.	1 1
Type	Disposable
Dimensions	20x20x1
NET WEIGHT	
NET WEIGHT (lbs.)	360 395

Airtron

Airtron Corp., Kittle Rd.,	
Holland, Ohio	
Model No.	AC-200 AC-300
DIMENSIONS (In In.)	
Height	74 74
Width	29 29
Depth	21 21
COMPRESSOR	
Type	Sealed
Make	Tecumseh
Hp.	2 3
Cooling method	Water
COMPRESSOR MOTOR	
Phase	1 & 3
Cycle	60 60
Volts	230 230
CONDENSER	
Cooling medium	Water
REFRIGERANT	
Type	"Freon-22"
BLOWERS	
No.	1 1
C.f.m.	800 1200
BLOWER MOTOR	
No.	1 1
Hp.	1/4 1/4
AIR FILTER	
No.	1 1
Type	Throwaway
NET WEIGHT (lbs.)	550 590

Curtis

Curtis Mfg. Co., Refg. Div., 1905 Kienlen Ave., St. Louis 26, Mo.

Model No.	F250 PA	F400 PA	F600 PA	F800 PA	F1200 PA	F1500 CTAC	F2000 CTAC	F250 PAH	F400 PAH	F600 PAH	F800 PAH	F1200 PAH
DIMENSIONS (In In.)												
Height	76	76	86 1/2	97 1/2	93 1/2	76	86 1/2	76	76	86 1/2	97 1/2	93 1/2
Width	35 1/2	35 1/2	42 1/2	46 1/2	70 1/2	81	81	35 1/2	35 1/2	42 1/2	46 1/2	70 1/2
Depth	22 1/2	22 1/2	24 1/2	27 1/2	29 1/2	31 1/2	42 1/2	22 1/2	22 1/2	24 1/2	27 1/2	29 1/2
COMPRESSOR												
Type	Open											
Cylinders	2	2	2	(2) 2	4	4		2	2	4	3	Herm.
Bore (in.)	2 1/2	2 1/2	3	3 1/2	(2) 3	3	3	1 1/2	1 1/2	2	2	2
Stroke (in.)	2 1/4	2 1/4	2 1/4	3 1/2	2 1/4	3 1/2	3 1/2	2 1/4	2 1/4	3 1/2	3 1/2	3 1/2
R.p.m.	500	795	633	440	633	560	760	1750	1750	1750	1750	1750
Make	Curtis							Tecumseh				
Hp.	2	3	5	7 1/2	(2) 5	15	20	2	3	5	7 1/2	(2) 5
Cooling method	Air											
COMPRESSOR MOTOR												
Phase	1 & 3											
Cycle	60/50	60/50						1	3	3	3	3
Volts	220/440							60	60	60	60	60
CONDENSER												
Type	Shell & Coil							Shell & Tube				
Cooling medium	Water							Water				
EVAPORATOR												
Face area (sq. ft.)	2.06	3.02	4.80	6.6	9.6	11.7	16.0	2.06	3.02	4.8	6.6	9.6
Rows (No.)	4	3	3	3	4	3	3	4	3	3	3	4
REFRIGERANT												
Type	"Freon-22"											
Charge (lbs.)								40	40			
BLOWERS												
No.	1	1	1	1	2	3	3	1	1	1	1	2
C.f.m.	800	1200	2000	3000	4000	6000	8000	800	1200	2000	3000	4000
R.p.m.	560	650	560	618	750	772	550	560	650	660	618	750
BLOWER MOTOR												
No.	1	1	1	1	1	1	1	1	1	1	1	1
Hp.	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/4
AIR FILTER												
No.	1	1	1	2	3	4	6	1	1	1	2	3
Type												
HEATING												
NET WEIGHT (lbs.)	795	865	1085	1505	2220	2840	3180	660	770	1010	1360	2080

ACI Air Conditioner

American Coils Co., 360 Thomas St., Newark, N. J.

Model No.	ACI30	ACI30C	ACI50	ACI50C	ACI75	ACI75C	ACI100	ACI100C	ACI150	ACI150C	ACI200C
DIMENSIONS (In In.)											
Height	78 1/2	78 1/2	83 1/2	83 1/2	83 1/2	83 1/2	89 1/2	89 1/2	94 1/2	94 1/2	94 1/2
Width	35 1/2	35 1/2	44 1/2	44 1/2	51	51	57	57	70	70	70
Depth	25 1/2	25 1/2	26 1/2	26 1/2	30 1/2	30 1/2	30 1/2	30 1/2	30 1/2	30 1/2	30 1/2
COMPRESSOR											
Type	Her.	Open	Her.	Open	Her.	Open	2 Her.	Open	2 Her.	Open	Open
Cylinders	2	2	2	2	3	4	(2) 2	4	(2) 3	4	4
Bore (in.)	2 1/2	3 1/2	2 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2	4 1/2
Stroke (in.)	1 7/16	2 1/4	1 13/16	2 1/4	2 1/4	2 1/4	1 13/16	2 1/4	2 1/4	3 3/8	4 1/4
R.p.m.	1750	510	1750	825	1750	620	1750	825	1750	560	730
Make	Copeland	Brunner	Cope.	Brunner	Cope.	Brunner	Cope.	Brunner	Cope.	Brunner	Brunner
Hp.	3	3	5	5	7 1/2	7 1/2	(2) 5	10	(2) 7 1/2	15	20
Cooling method	Water	Air	Suction	Gas	Air	Suction	Air	Suction	Air	Air	Air
COMPRESSOR MOTOR											
Phase	1-3	1-2-3	1-2-3	1-2-3							

Typhoon

Typhoon Air Conditioning Co., Inc., 505 Carroll St., Brooklyn, N. Y.

Model No.	H34SC‡	44SC	H44SC	61SC	H64SC	84SC	H84SC
DIMENSIONS (In In.)							
Height	87*	87*	87*	87*	87*	91½*	91½*
Width	37	37	37	37	37	42	42
Depth	23%	23%	23%	23%	23%	23%	23%
COMPRESSOR							
Type	Herm.	Open	Herm.	Open	Herm.	Open	Herm.
Cylinders	2	4	2	3	2	3	3
Bore (in.)	1½	1½	1-15/16	2½	2½	3½	2½
Stroke (in.)	1.2	1.2	1.2	3	1-13/16	3	2
R.p.m.	1750	1050	1750	620	1750	645	1750
Make	Tecumseh		Copeland		Tecumseh		Copeland
Hp.	2	3	3	5	5	7½	7½
Cooling method	Refrig.	Air	Refrig.	Air	Refrig.	Air	Refrig.
CONDENSER							
Type	All copper shell-tube†						
Cooling medium	Water						
EVAPORATOR							
Face area (sq. ft.)	1.875	2.81	2.81	4.67	4.67	4.67	4.67
Rows (No.)	4	4	4	4	4	6	6
REFRIGERANT							
Type	"F-22"	"F-12"	"F-22"		"F-12"		
Charge (lbs.)	6	10	6	12	10	15	15
BLOWERS							
No.	1	1	1	1	1	1	1
C.f.m.	800	1200	1200	2000	2000	3000	3000
R.p.m.	600	640	640	555	555	637	637
BLOWER MOTOR							
No.	1	1	1	1	1	1	1
Hp.	1/4	1/4	1/4	1/2	1/2	1/2	1/2
AIR FILTER							
No.	2	2	2	2	2	2	2
Type	Throwaway						
Dimensions	25x16					20x20	
HEATING							
NET WEIGHT (lbs.)	580	680	615	885	860	1115	1080

*With plenum.

†Air cooled condenser also available.

‡Also available in open type compressor using "F-12"—model 34SC.

Typhoon

(Cont.)

Model No.	94SC	H94SC	114SC	164SC	214SC	264SC	314SC
DIMENSIONS (In In.)							
Height	95*	95*	95*	95	95	95	92
Width	52	52	52	62	62	62	84
Depth	27	27	27	35	35	35	45
COMPRESSOR							
Type	Open	Herm.		Open		4	4
Cylinders	3	3	3	3	3	4	4
Bore (in.)	3½	2½	3½	4	4	3-3/32	3-1/16
Stroke (in.)	3	2	3	4½	4½	3½	3½
R.p.m.	645	1750	800	570	760	1400	1640
Make	Tecum.	Copeland		Tecumseh		Schnacke	
Hp.	7½	7½	10	15	20	25	30
Cooling method	Air	Refrig.		Air			
CONDENSER							
Type	All copper shell-tube†						
Cooling medium	Water						
EVAPORATOR							
Face area (sq. ft.)	7.87	7.87	7.87	13.0	13.0	13.0	21.0
Rows (No.)	4	4	5	5	6	8	6
REFRIGERANT							
Type	"Freon-12"						
Charge (lbs.)	16	16	18	32	38	42	46
BLOWERS							
No.	2	2	2	2	2	2	2
C.f.m.	3800	3800	4000	6000	8000	8000	12000
R.p.m.	555	555	565	450	547	587	474
BLOWER MOTOR							
No.	1	1	1	1	1	1	1
Hp.	1/4	1/4	1/4	1½	2	3	5
AIR FILTER							
No.	2	2	2	6	6	6	6
Type	Throwaway						
Dimensions	25x20x1			20x20x1			Cleanable 20x30x2
HEATING							
NET WEIGHT (lbs.)	1300	1265	1440	2360	2845	3050	4170

*With plenum.

†Air cooled condenser also available.

Frick

Frick Co., Waynesboro, Pa.

Model No.	300	520	750
DIMENSIONS (In In.)			
Height	81	84½	88½
Width	38	42	55
Depth	24½	27½	27½
COMPRESSOR			
Type	Accessible Hermetic		
Cylinders	2	2	3
Bore (in.)	2½	2½	2½
Stroke (in.)	1-7/16	1-13/16	2
R.p.m.	1750	1750	1750
Hp.	3	5	7½
Cooling method	Water		
COMPRESSOR MOTOR*			
Phase	3	3	3
Cycle	60	60	60
Volts	220	220	220
CONDENSER			
Type	Shell & Coil		
Cooling medium	Water		
EVAPORATOR			
Face area (sq. ft.)	3.26	5.16	7.33
Rows (No.)	4	4	4
REFRIGERANT			
Type	"Freon-12"		
BLOWERS			
No.	1	1	1
C.f.m.	1300	2000	3000
R.p.m.	775	640	748
BLOWER MOTOR			
No.	1	1	1
Hp.	1/2	1/2	1/2
AIR FILTER			
No.	1	1	2
Type	Cleanable		
Dimensions	15x29	25x30	25x20
HEATING			
NET WEIGHT (lbs.)	800	1200	1400
SPECIAL FEATURES			
			Insulated condenser

*Also for other standard current characteristics.

"A CASE OF COOL JUDGMENT"**Commercial Type Package Air Conditioners****Yorkaire**

York Corp., York, Pa.

ROOM AIR CONDITIONER
DEALERS & INSTALLERS
DON'T BE WITHOUT A
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A Portable Testing Instrument that quickly determines WITHOUT the necessity of first installing the air conditioner the Voltage Adequacy of an electrical circuit for efficient usage of 1/2, 1/3 & 1/4-HP Units (115 V).

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RUST

can eat holes in your Sales, too!



A timely message to all

with a stake in ROOM CONDITIONERS

Rust and corrosion can be stopped cold by a single coating of Porcelain enamel. And it costs but little to give product-users this protection against early deterioration.

In a highly competitive field such as room conditioning, this could make a big difference in a company's sales—especially so in areas where salt-laden moisture in the air plays havoc with ordinary materials and finishes.

You're going to see Porcelain enamel on room conditioners this year. Naturally, the companies behind these products are seeking a sales advantage—not only for '55, but for next year and the years ahead.

Of even greater importance, these companies are doing something about a problem that could jeopardize a big and tremendously promising business. Yes, rust can eat holes in your sales, too!

Porcelain Enamel
belongs on
Room Conditioners

Only Porcelain enamel, the FUSED-IN finish, provides all these advantages:

- 1 Permanent, handsome appearance
- 2 Rust and corrosion resistance
- 3 High alkali and acid resistance
- 4 Easy cleaning and low maintenance
- 5 Long wearing, tough, durable
- 6 Weatherproof, the year 'round
- 7 Wide consumer acceptance

FERRO CORPORATION

Porcelain Enamel Division

4150 EAST 56TH STREET

CLEVELAND 5, OHIO



LISTING 1955 Room Air Conditioner Models

Emerson

Emerson Radio & Phonograph Corp., 111 8th Ave., New York 11, N. Y.

Model No.	E3D1	E5C1	E5D1	E7D1	E7E1	E7D8	E7E2	E10D2	E10E3
CAPACITY (Btu/hr.)	4500	6400	6400	9500	9500	12500	12500		
DIMENSIONS (In.)									
Height									
Width	26 1/2	26 1/2	26 1/2	26 1/2	26 1/2	26 1/2	26 1/2	26 1/2	26 1/2
Depth	23 1/2	23 1/2	23 1/2	23 1/2	23 1/2	23 1/2	23 1/2	23 1/2	23 1/2
GABINET									
Material	Steel and Plastic								
Projection (in.)	5% to 23 1/2				12%	12%			
Window closing adapter	Yes, Optional						No		
Controls	Concealed								
Type	Single Knob						Pushbutton		
Thermostat	Optional						Std.		
HEATING PROVISION									
Type	No				Yes	No	Electric		
AIR CAPACITIES									
Circulation (c.f.m.)	165	240	240	300	300	365	365		
Fresh	70	80	80	100	100	130	130		
Exhaust	90	120	120	150	150	160	160		
ELECTRICAL									
Voltages	115	115	115	115/208/230	115/208/230	230/208	230/208		
Total average watts	690	790	990	1240/1300	1240/1300	1550	1550		
Total amperes	7.5	7.5	12	12/7.5	12/7.5	10	10		
Unit power factor, %	80	90	72	90/85	90/85	85	85		
COMPRESSOR									
Hp.	1/4	1/4	1/4	1/4	1/4	1/4	1/4		
Cylinders	1	1	1	1	1	2	2		
R.p.m.	1720	1720	1720	1720	1720	1720	1720		
Make	Tecumseh								
REFRIGERANT									
Type	'Freon-12'								
Charge (oz.)	18	18	18	21	21	22	22		
FAN MOTOR									
Number	1	1	1	1	1	1	1		
R.p.m.	1050	1050	1050	1050	1050	1050	1050		
Hp.	1/20	1/12	1/12	1/12	1/12	1/12	1/10		
COIL									
Condenser (rows)	1	1	1	2	2	3	3		
Evaporator (rows)	2	2	2	2	2	2	2		
AIR FILTER									
Type	Throwaway						Electrostatic		
Dimensions (1/2 in.)	9 1/2 x 25 1/2						Permanent		
NET WEIGHT	130	140	140	155	155	220	220		
SPECIAL FEATURES									
Available with special kit, making unit portable, thermal and acoustical insulation completely covering inside of unit casing.									

Servel

Servel, Inc., Evansville, Ind.

Model No.

44-1	64-1	94S-1	94-1, 2	124-2
4100	5800	94S-2	5, 7, 8	5 & 8
		94S-5	H-94-1	H-124-2

44-1	64-1	94S-1	94-1, 2	124-2
4100	5800	94S-2	5, 7, 8	5 & 8
		94S-5	H-94-1	H-124-2

44-1	64-1	94S-1	94-1, 2	124-2
4100	5800	94S-2	5, 7, 8	5 & 8
		94S-5	H-94-1	H-124-2

44-1	64-1	94S-1	94-1, 2	124-2
4100	5800	94S-2	5, 7, 8	5 & 8
		94S-5	H-94-1	H-124-2

44-1	64-1	94S-1	94-1, 2	124-2
4100	5800	94S-2	5, 7, 8	5 & 8
		94S-5	H-94-1	H-124-2

44-1	64-1	94S-1	94-1, 2	124-2
4100	5800	94S-2	5, 7, 8	5 & 8
		94S-5	H-94-1	H-124-2

44-1	64-1	94S-1	94-1, 2	124-2
4100	5800	94S-2	5, 7, 8	5 & 8
		94S-5	H-94-1	H-124-2

44-1	64-1	94S-1	94-1, 2	124-2
4100	5800	94S-2	5, 7, 8	5 & 8
		94S-5	H-94-1	H-124-2
</td				

Yorkaire

York Corp., York, Pa.

Model No.	B30	B50S	B50	A75R	CB75MR			C75MR			B100MR			
					CB75M	CB75	CB75	B75MR	B75M	C75	C75MR	B75	C75M	B100
Height	13%	13%	14%	14%	15%	15%	14	14%	14%	15%	15%	14	14%	14
Width	26	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%
Depth	26%	27%	28%	28%	30%	30%	27%	30%	30%	30%	30%	30%	30%	30%
CABINET														
Material	Steel & Wood				Steel and Plastic									
Projection (in.)	11½	12½	20%	19½	21%	21%	18%							
Window closing adapter				No	Concealed									
Controls					Knob									
Type														
Thermostat		No				Std.*	Std.*	Std.						
HEATING														
PROVISION		No				Yes	Yes†	Yes‡						
Type							Reverse	Cycle						
AIR CAPACITIES														
Circulation (c.f.m.)	130	156	240	300	300	300	325							
Fresh	40	46	200	250	100	150								
Exhaust		50	50	75*	30	275								
ELECTRICAL														
Voltages	115	115	115	—	115, 208†, 230—	208, 230								
Total average watts	650	736	930	1180	1180	1270	1650							
Total amperes		9.5	12.5			12.0, 8.5, 7.0								
Unit power factor		.66	.75			.89, .76, .81								
COMPRESSOR														
Hp.	½	½	½		½	½	½	½	½	½	½	½	½	½
Cylinders	1	1	2		2	2	2	2	2	2	2	2	2	2
R.p.m.	1725	1725	1725		1725	1725	1725	1725	1725	1725	1725	1725	1725	1725
Make					York									
REFRIGERANT														
Type	“Freon-22”	“F-12”	—	“Freon-22”										
Charge (oz.)	15	17	21		23	23	23	23	23	23	23	23	23	23
FAN MOTOR														
Number	1	1	1		1	1	1	1	1	1	1	1	1	1
R.p.m.	1130	1130	1075	1130	1075	1040	1130	1030	1030	1030	1030	1030	1030	1030
Hp.	1/30	1/30	1/15		1/9	1/12	1/12	1/20	1/20	1/20	1/20	1/20	1/20	1/20
COIL														
Condenser (rows)	2	2	2		2	2	2	2	2	2	2	2	2	2
Evaporator (rows)	2	2	2		2	2	2	2	2	2	2	2	2	2
AIR FILTER														
Type	Throwaway	Throwaway	Throwaway		7½x16½	7½x16½	7½x16½	9¾x16½	9¾x16½	12¾x19¾				
Dimensions (½ in.)	—	—	—		—	—	—	—	—	—	—	—	—	—
NET WEIGHT (lbs.)	104	128	140	195	165	165	208							

*Not on B75, CB75, C75. †On MR models only. ‡No 208 on CB75M.

Yorkaire

(Cont.)

Model No.	B100S	C100R	C150	B75CM	B100CM			
					CB100S	C100MR	B75CMR	B100CMR
DIMENSIONS (In.)								
Height	15½	15½	18½	27½	27½			
Width	26½	26½	29	37½	37½			
Depth	30½	30½	39½	19½	19½			
CABINET								
Material	Steel & Plastic	—	Steel & Wood					
Projection (in.)	6½-21½	16½	25½	25½	25½			
Window closing adapter	No	—	Yes					
Controls								
Type								
Thermostat		No	Standard					
HEATING PROVISIONS		No	Yes	No	Yes†	Yes‡		
Type				Rev. Cycle		Reverse	Cycle	
AIR CAPACITIES								
Circulation (c.f.m.)	325	300	525	365	370			
Fresh	150	250	160	250	250			
Exhaust		75	—	130	130			
ELECTRICAL								
Voltages	—	208/230†	—	115/208/230	208/230			
Total average watts	1560	1640	2830	1370	1690			
Total amperes		9.5	14.0	13.5, 7.0,	9.5			
		8.5	12.5	6.0	8.5			
Unit power factor		.86	.84	.82	.84	.85		
COMPRESSOR		1	1	1½	%	1		
Hp.	2	2	2	2	2	3		
Cylinders		1725	1725	1725	1725	1725		
R.p.m.								
Make								
REFRIGERANT								
Type	“Freon-22”	“F-12”	—	40	27	29		
Charge (oz.)	25	25	—	40	27	29		
FAN MOTOR		1	1	2	1	1		
Number		1100	1100	1120	1730	1720		
R.p.m.	%	%	1/10, 1/20	%	%	%		
Hp.								
COIL		2	3	3	4	5		
Condenser (rows)		2	3	3	4	5		
Evaporator (rows)		2	3	3	3	3		
AIR FILTER		Throwaway	Cleanable	Throwaway				
Type	—	—	9x24	—				
Dimensions (½ in.)	—	—	—	—				
NET WEIGHT (lbs.)	175	215	279	225	245			

*On MR models only. †No 208 on CB100S. ‡\$8.2 on B100CMR.

Worthington

Worthington Corp., Harrison,

Room Air Conditioner Models

General Electric

General Electric Co., Appliance Park, Louisville, Ky.

Model No.	R-32M	R-52M	R-53M	R-72M	R-73M	R-102M
DIMENSIONS (In.)						
Height	16	16	16	16	16	16
Width	25 $\frac{1}{2}$	25 $\frac{1}{2}$	25 $\frac{1}{2}$	25 $\frac{1}{2}$	25 $\frac{1}{2}$	25 $\frac{1}{2}$
Depth	32 $\frac{1}{2}$	32 $\frac{1}{2}$	32 $\frac{1}{2}$	32 $\frac{1}{2}$	32 $\frac{1}{2}$	32 $\frac{1}{2}$
CABINET						
Material	Steel					
Projection (in.)	From flush to 18 $\frac{1}{2}$					
Window closing adapter	Yes					
Controls	Concealed					
Type	Knob					
Thermostat	Standard					
HEATING PROVISION						
Type	No	No	Yes	No	Yes	No
(Rev. Cycle above 40°F outside — resistance heater below 40°F outside)						
AIR CAPACITIES						
Exhaust	130	140	140	200	200	270
ELECTRICAL						
Voltages	115	115-208-230	230	208-230	230	230
Total Average Watts	7.5	12.0-6.6-5.9	6.0	8.9-7.7	7.7	10.8
Total amperes	775	1180-1200-1185	1185	1575-1580	1555	2200
Unit Power Factor, %	90.0	86.2-88.4-87.4	87.4	86.8-86.5	86.5	91.0
COMPRESSOR						
Hp.	1/2	1/2	1/2	1	1	1 1/2
Cylinders	1	1	1	2	2	2
R.p.m.	1725					
Make	Tecumseh					
REFRIGERANT						
Type	'F-22'					
Charge (oz.)	24	36				
FAN MOTOR						
No.	2	3				
R.p.m.	1350-1500					
Hp.	1/50-1/30 1/60-1/20					
COIL						
Condenser (rows)	2	2	2	3	3	4
Evaporator (rows)	2	2	2	3	3	4
AIR FILTER						
Type	Permanent					
Dimensions	20 $\frac{1}{2}$ x11 $\frac{1}{2}$ x $\frac{1}{2}$					
NET WEIGHT	190	230				



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Bantam room air conditioner

smallest, most effective unit ever built
with high cooling capacity

Never before has so much cooling power been engineered into so compact a case . . . as much as 18 inches shorter than competitive units. Streamlined manufacturing and "straight-line" distribution enable the dealer to sell the Universal Bantam far below the price of other room air conditioners. Now, UNIVERSAL, the oldest name in home appliances, offers the dealer his first real chance to enjoy a full profit and meet discount competition. In addition, you are protected from price cutting in your own market by the Universal Exclusive Dealer Franchise Plan. See Universal first for super-powered air conditioning at its best.

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- Push-button controls
- Power packed cooling
- Up to 18" shorter than other makes
- Easier installation
- New remote control thermostat

Get the cold facts, today!

UNIVERSAL Major Corporation, 19 W. 44 Street, New York City
Executive offices: Oxford 7-0515

Weatherking

Teleking Corp., New York, N. Y.

Model No.	575TH	5100TH
CAPACITY		
(B.t.u./hr.)	9000	12000
DIMENSIONS (In.)		
Height	12 $\frac{1}{2}$	12 $\frac{1}{2}$
Width	26 $\frac{1}{2}$	26 $\frac{1}{2}$
Depth	28 $\frac{1}{2}$	28 $\frac{1}{2}$
CABINET		
Material	Plastic & steel	
Projection (in.)	14 & 0 (with adapter)	
HEATING PROVISION		
Type	Yes	Electric
AIR CAPACITIES		
Circulation (c.f.m.)	280	340
Fresh	50	60
Exhaust	50	50
ELECTRICAL		
Voltages	115-230	230
Total average watts	1277	1800
Total amperes	13	10
Unit power factor, %	.90	.90
COMPRESSOR		
Hp.	1/2	1
Cylinders	1	2
R.p.m.	1725	1725
Make	Tecumseh	
REFRIGERANT		
Type	"F-22"	
Charge (oz.)	24	36
FAN MOTOR		
No.	2	3
R.p.m.	1350-1500	
Hp.	1/50-1/30 1/60-1/20	
COIL		
Condenser (rows)	3	4
Evaporator (rows)	2	3
AIR FILTER		
Type	Permanent	
Dimensions	20 $\frac{1}{2}$ x11 $\frac{1}{2}$ x $\frac{1}{2}$	
NET WEIGHT	190	230

Remington

Remington Corp., Auburn, N. Y.

Model No.	S6C	D6C	S7C	D8C	I1C	I5A
CAPACITY (Btu/hr.)						
6050	6050	8100	9010	10550	15500	
DIMENSIONS (In.)						
Height	18 $\frac{1}{2}$	18 $\frac{1}{2}$	18 $\frac{1}{2}$	14 $\frac{1}{2}$	14 $\frac{1}{2}$	14 $\frac{1}{2}$
Width	23	23	23	27	27	26
Depth	28	28	28	31 $\frac{1}{2}$	31 $\frac{1}{2}$	34
CABINET						
Material	Steel	Steel	Steel	Steel & Plastic	Steel & Plastic	Steel
Projection (in.)	3 $\frac{1}{2}$	3 $\frac{1}{2}$	3 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$	10 $\frac{1}{2}$
Window closing adapter	No	No	Yes	Yes	Yes	No
Controls	Open	Open	Open	Conc.	Conc.	Conc.
Type	Thermostat	No	Std.	No	Std.	Std.
HEATING PROVISION	No	Yes	Yes	Yes	Yes	No
Type	Electric	Electric	Electric	Electric	Electric	Electric
AIR CAPACITIES						
Circulation (c.f.m.)	220	185-220	250	200-275	285	450
Fresh	50	50	55	60	60	25
Exhaust						
ELECTRICAL						
Voltages	115	115	115,208,230	115,208,230	208,230	208,230
Total Average Watts	860	860	1040	1270	1600	1980
Total amperes	10.2	10.2	12.6			

Perfection

Perfection Industries, Inc., 7609 Platt Ave., Cleveland 4, Ohio

Model No.	A50A	A75A	A75B	A75C	A100B	A100C	A150B
CAPACITY (Btu/hr.)	6300	9100	9100	9100	11200	11200	16800
DIMENSIONS (In.)							
Height	14%	14%	14%	14%	14%	14%	14%
Width	26%	26%	26%	26%	26%	26%	26%
Depth	16%	16%	16%	16%	16%	16%	16%
CABINET							
Material	Steel						
Projection (in.)	13%	13%	13%	13%	13%	13%	13%
Window closing adapter	Yes						
Controls	Concealed						
Type	Knob						
Thermostat	Standard						
HEATING PROVISION							
Type	Electric						
AIR CAPACITIES							
Circulation (c.f.m.)	210	292	292	292	292	292	425
Fresh	40	65	65	65	65	65	95
Exhaust	150	150	150	150	120	120	200
ELECTRICAL							
Voltages	115	115	230	208	230	208	230
Total average watts	890	1190	1190	1190	1500	1500	2175
Total amperes	110	14.5	6.8	7.6	7.25	8.0	9.8
Unit power factor	.70	.75	.75	.75	.91	.91	.96
COMPRESSOR							
Hp.	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Cylinders	1	1	1	1	1	1	1
R.p.m.	1750	1750	1750	1750	1750	1750	1750
Make	Tecumseh						
REFRIGERANT							
Type	"Freon-12"	"Freon-12"	"Freon-12"	"Freon-22"	"Freon-22"	"Freon-22"	"Freon-22"
Charge (oz.)	14	18 1/4	18 1/4	18 1/4	15 1/2	15 1/2	19
FAN MOTOR							
Number	2	2	2	2	2	2	2
R.p.m.	1100	1360	1360	1360	1360	1360	1550
Hp.	1/20	1/40	1/40	1/40	1/40	1/40	1/40
COIL							
Condenser (rows)	2	3	3	3	3	3	3
Evaporator (rows)	1	1	1	1	1	1	2
AIR FILTER							
Type	Dust Stop						
Dimensions (in.)	12-1/16x21 1/4x1 1/2						
NET WEIGHT (lbs.)	130	169	169	169	190	190	190

Fedders

Fedders-Quigan Corp., 57 Tonawanda St., Buffalo, N. Y.

Model No.	44	45	46	46M	48	49, 49H	49M
CAPACITY (Btu/hr.)	4175	5515	6050	6050	8005	9010	9010
DIMENSIONS (In.)							
Height	13%	13%	13%	13%	15%	15%	15%
Width	23%	23%	23%	23%	27%	27%	27%
Depth	27%	27%	27%	28 1/2	27%	27%	29%
CABINET							
Material	Steel and Plastic	Steel and Plastic	Steel and Plastic	Steel and Plastic	Steel and Plastic	Steel and Plastic	Steel and Plastic
Projection (in.)	10-15/16	10-15/16	10-15/16	4-5/16	13 1/4	13 1/4	5
Window closing adapter	No	No	No	No	No	No	No
Controls	Concealed	Concealed	Concealed	Concealed	Concealed	Concealed	Concealed
Type	Pushbutton	Pushbutton	Pushbutton	Pushbutton	Pushbutton	Pushbutton	Pushbutton
Thermostat	Optional	Standard	Opt.	Opt.	Standard	Standard	Standard
HEATING PROVISION							
Type	No	No	No	No	No (49)	Yes (49H)	Yes (49H)
					Reverse	Electric	Electric
					Cycle	Cycle	Cycle
AIR CAPACITIES							
Circulation (c.f.m.)	134	162	190	190	300	300	300
Fresh	35	35	35	50	50	50	70
Exhaust	70	70	95	95	80	80	80
ELECTRICAL							
Voltages	115	115	115	115	115	115	230, 208
Total average watts	605	900	875	810	1270	1220	1130
Total amperes	6.5	9.4	9.2	7.5	11.4	11.1	11.9
COMPRESSOR							
Hp.	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Cylinders	1	1	1	1	1	2	1
R.p.m.	1750	1750	1750	1750	1750	1750	1750
Make	Tecumseh	Tecumseh	Tecumseh	Tecumseh	Tecumseh	Tecumseh	Tecumseh
REFRIGERANT							
Type	"Freon-12"	"Freon-12"	"Freon-12"	"Freon-22"	"Freon-22"	"F-12"	"F-22"
FAN MOTOR	1	1	1	1	2	2	1
Number	1090	1090	1090	1075	1070-1265	1070-1360	1020
R.p.m.	1/40	1/20	1/20	1/20	-1/30, 1/100	-1/30, 1/100	1/20
Hp.	1/20	1/20	1/20	1/20	1/20	1/20	1/20
COIL							
Condenser (rows)	2	2	3	2	3	3	2
Evaporator (rows)	2	2	3	2	1	2 (49)	2
AIR FILTER	11 1/2 x 9	11 1/2 x 9	11 1/2 x 9	11 1/2 x 10	-10 1/2 x 14 (2)	13 1/2 x 13 1/2	185
Dimensions (1/2 in.)	11 1/2 x 9	11 1/2 x 9	11 1/2 x 9	11 1/2 x 10	-10 1/2 x 14 (2)	13 1/2 x 13 1/2	185
NET WEIGHT (lbs.)	140	150	150	155	198	198	185
SPECIAL FEATURES	Fleximount on M models.						

Fedders

(Cont.)

Model No.	411, 411S	411H	411M	411MH	414M	46C	49C	49FT
CAPACITY (Btu/hr.)	11710	11710	11710	16020	6025	9005	9030	
DIMENSIONS (In.)								
Height	15%	15%	15%	15%	10%	10%	33	
Width	27%	27%	27%	27%	14 1/2	14 1/2	36	
Depth	27%	31%	31%	31%				

Self-Contained Home Cooling Systems

Clime-Matic

Clime-Matic Corp., Connecticut & Richards Aves.,
S. Norwalk, Conn.

Model No.	CFU300	CFU300	CFU500
DIMENSIONS (In In.)			
Height	52	52	52
Width	25	25	32
Depth	28	28	32
COMPRESSOR			
Type	Hermetic		
Cylinders	2	2	2
Bore (in.)	1-15/16	1-1/8	2-3/8
Stroke (in.)	1-1/8	1-1/8	1-3/16
R.p.m.	1750	1750	1750
Make	Copeland		
H.P.	2	3	5
Cooling method	Suction Gas		
COMPRESSOR MOTOR			
Phase	1 or 3	1 or 3	1 or 3
Cycle	60	60	60
Volts	220	220	220
CONDENSER			
Type	Steel Shell, Copper Coil		
Self-contained/remote	Self-contained		
Cooling medium	Water		
EVAPORATOR			
Face area (sq. ft.)	2.0	2.8	3.6
Rows (No.)	3	3	3
REFRIGERANT			
Type	"F-12"	"F-22"	"F-12"
Charge (lbs.)	6	8	10
BLOWER			
Own	No		
Number	1	1	1
C.f.m.	800	1200	1650
R.p.m.	720	770	700
CONTROLS			
Temperature	No		
Damper	No		
AIR FILTER			
Number	1	1	2
Type	Optional		
Dimensions	25x20x1	25x20x1	25x16x1
NET WEIGHT (lbs.)	440	470	525
SPECIAL FEATURES			
Warm air furnace companion unit.			

Airtron

Airtron Corp., Kittle Rd.,
Holland, Ohio

Model No.	AC-200	AC-300
DIMENSIONS (In In.)		
Height	59	59
Width	29	29
Depth	21-1/4	21-1/4
COMPRESSOR		
Type	Sealed	
Make	Tecumseh	
H.P.	2	3
Cooling method	Water	
COMPRESSOR MOTOR		
Phase	1 & 3	
Cycle	60	60
Volts	220	220
CONDENSER		
Self-contained/remote	Self-contained	
Cooling medium	Water	
REFRIGERANT		
Type	"Freon-22"	
BLOWER		
Own	Yes	
No.	1	1
C.f.m.	800	1200
CONTROLS		
Temperature	Yes	
Damper	No	
AIR FILTER		
No.	1	1
Type	Throwaway	
NET WEIGHT (lbs.)		
510	560	

Commercial Type Package Air Conditioners

This page contains residential and commercial air conditioning specifications which were received too late to be incorporated in the regular sections elsewhere in this issue.

U. S. Capitolaire

U. S. Radiator Corp., Detroit 31, Mich.

Model No.	USCH-24-W	36-W	60-W	90-W	120-W	180-W
DIMENSIONS (In Inches)						
Height	72	86	88	97%	100%	108%
Width	32-1/2	37-1/2	46-1/2	48-1/2	65-1/2	82
Depth	22-1/2	22-1/2	28%	29%	29%	29%

COMPRESSOR

Type	Semi-Hermetic
Cylinders	2
Bore (in.)	2-1/2
Stroke (in.)	1-5/32
R.p.m.	1-13/16
Make	Copeland
H.P.	2
Cooling method	Water

COMPRESSOR MOTOR

Phase	1 & 3
Cycle	60
Volts	220, 230, 440

CONDENSER

Type	Shell & Coil
Cooling medium	Water

EVAPORATOR

Face area (sq. ft.)	1.66	2.5	4.0	5.4	7.6	12.0
Rows (No.)	4	5	5	5	5	5

REFRIGERANT

Type	"Freon-12"
Charge (lbs.)	10

BLOWERS

Number	1	1	1	1	2	2
C.f.m.	800	1200	2000	3000	4000	6000

BLOWER MOTOR

Number	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/2
H.P.	3	3	5	5	2-5	2-7/8

AIR FILTER	Throwaway or Cleanable
Dimensions (in.)	9-1/2x30-1/2x1
HEATING	Steam or Water Coil
SHIPPING WEIGHT (lbs.)	820 950 1150 1600 2400 2900

U. S. Capitolaire

(Cont.)

Model No.	US-AEC3	5	7-1/2	10	15
DIMENSIONS (In Inches)					
Height	60	60	65	68	74
Width	32	32	35-1/2	38-1/2	41-1/2
Depth	77-1/2	77-1/2	97-1/2	108-1/2	121-1/2

COMPRESSOR

Type	Semi-Hermetic
Cylinders	2
Bore (in.)	2-1/2
Stroke (in.)	1-7/16
R.p.m.	1-13/16
Make	Copeland
H.P.	2
Cooling method	Water

COMPRESSOR

Hotpoint

Hotpoint Co., 5600 W. Taylor St., Chicago, Ill.

Model No.	5EY30	5EY32	5EZ40	SEY50	SEZ50	SEZ80
DIMENSIONS (In.)						
Height	15 1/4	22	15 1/4	15 1/4	15 1/4	18 1/4
Width	27 1/4	15 1/2	27 1/4	27 1/4	27 1/4	30 1/4
Depth	32	21 1/4	32	32	32	39 1/4
CABINET						
Material			Plastic & Steel			
Projection (in.)	10 1/2	12 1/2	10 1/2	10 1/2	10 1/2	18 1/2
No.	Yes	No	No	No	No	No
Window closing adapter						
Controls	Concealed	Concealed	Open-Conc.	Conc.	Conc.-Open	Cone.
Type	Knob	Push.	Push-Knob	Knob	Push-Knob	—
Thermostat	Opt.	Opt.	Stand.	Opt.	Stand.	Stand.
HEATING PROVISION	No	No	Yes	No	Yes	No
Type			Electric			
AIR CAPACITIES						
Circulation (c.f.m.)	300	325	300	375	375	550
Fresh	100	150	100	150	150	150
Exhaust	150	..	150	175	175	250
ELECTRICAL						
Voltages	115-230-208	115	115-230-208	208/230	208/230	208/230
Total Average Watts	1233	1220	1240	1380	1380	2070
Total amperes	12.6	12.0	12.0	7.8	7.8	9.0
Unit Power Factor, %	.82	.85	.85	.86	.86	.92
COMPRESSOR						
Hp.	1/4	1/4	1/4	1	1	1 1/2
Cylinders	1	1	2	2	2	2
Make			Tecumseh			
REFRIGERANT			"Freon-22"			
Type						
FAN MOTOR						
Number	1	1	1	1	1	1
R.p.m.	1065	1550	1065	1065	1065	1100
Hp.	1/12	1/16	1/10	1/10	1/10	1/4
COIL						
Condenser (rows)	3	3	3	3	3	3
Evaporator (rows)	2	2	3	3	3	4
AIR FILTER						
Type			Electrostatic			
Dimensions (1/2 in.)	8 1/2 x 20 7/8 x 1 1/2	—	8 1/2 x 20 7/8 x 1 1/2	—	8 1/2 x 23 3/8 x 1 1/2	—
NET WEIGHT	149	130	197	205	205	285

KauffmanKauffman Air Conditioning Co.,
4505 Olive St., St. Louis, Mo.

Model No.	Y	X	J	K
CAPACITY (Btu/hr.)	6000	9100	12000	16800
DIMENSIONS (In.)				
Height	16	16	16	16
Width	27	27	27	27
Depth	33	33	33	33
CABINET				
Material		Steel		
Projection (in.)	9	9	9	9
Window closing adapter		Yes		
Controls		Concealed		
Type		Knob		
Thermostat		Optional		
HEATING PROVISION		Optional		
Type		Optional		
AIR CAPACITIES		Rev. cycle/electric		
Circulation (c.f.m.)	220	300	350	425
Fresh	.15	.15	.15	.15
Exhaust	.25	.25	.25	.25
ELECTRICAL				
Voltages	115	115/230	230	230
Total amperes	11	15	9	12
COMPRESSOR				
Hp.	1/2	1/4	1	1 1/2
Cylinders	3	2	2	2
R.p.m.	1725	1725	1725	1725
Make		Tecumseh		
REFRIGERANT				
Type		"F-12"		
Charge (oz.)	14	19	25	32
FAN MOTOR				
Number	1/15	1/15	1/9	1/9
R.p.m.	1050	1050	1050	1050
COIL				
Condenser (rows)	2	3	4	4
Evaporator (rows)	2	2	3	2
AIR FILTER			Throwaway	
Type				
NET WEIGHT (lbs.)	140	160	190	215

Lombard

Model No.	L55A	L75A	L105A
CAPACITY (Btu/hr.)	5500	8750	11500
DIMENSIONS (In.)			
Height	15 1/2	15 1/2	15 1/2
Width	27 1/2	27 1/2	27 1/2
Depth	28 1/2	28 1/2	28 1/2
CABINET			
Material		Steel	
Projection (in.)	6 1/2	6 1/2	6 1/2
Window closing adapter		Yes	
Controls		Open	
Type		Knob	
Thermostat		Standard	
HEATING PROVISION		No	
AIR CAPACITIES			
Circulation (c.f.m.)	300	300	400
Fresh	50	50	50
Exhaust	100	100	100
ELECTRICAL			
Voltages	115	115/208/230	208/230
Total amperes	4	4	4
COMPRESSOR			
Hp.	1/2	1/4	1
Cylinders		Twin	
REFRIGERANT		"F-12"	
Type			
Charge (oz.)	21	21	21
FAN MOTOR			
Number	1	1	1
R.p.m.	1050	1050	1060
Hp.	1/15	1/15	1/10
COIL			
Condenser (rows)	3	3	4
Evaporator (rows)	2	3	3
AIR FILTER			
Type		Cleanable	
Dimensions (1/2 in.)		9x23x1 1/2	
NET WEIGHT (lbs.)	190	190	220

Magic Aire

United Electric Service Co.		Total amperes	9.5
500 Block Galveston St.		COMPRESSOR	
Wichita Falls, Texas		Hp.	1
Model No.	100-MA	Cylinders	2
CAPACITY (Btu/hr.)	12000	R.p.m.	1750
DIMENSIONS (In.)		Make	Tecumseh
Height	16 1/2	REFRIGERANT	
Width	26 1/2	Type	"Freon-22"
Depth	29 1/2	Charge (oz.)	26
CABINET		FAN MOTOR	
Material	Steel	Number	1
Projection (in.)	13	R.p.m.	1050-800
Window closing adapter	Yes	Hp.	1/15
Controls	Concealed	COIL	
Type	Knob	Condenser (rows)	3
Thermostat	Standard	Evaporator	3
HEATING PROVISION	No	AIR FILTER	
AIR CAPACITIES		Type	Aluminum foil
Circulation (c.f.m.)	400	Dimensions (in.)	19 1/2 x 11 1/2
Fresh	80	NET WEIGHT (lbs.)	230
ELECTRICAL		SPECIAL FEATURES	Blower-type air mover; 2-speed fan motor; air return grille underneath.
Voltages	230		

Room Air Conditioner Models**Deering**

The Deering Air Conditioning Co., 1069 Celestial Ave., Cincinnati 2, Ohio

Model No.	CW66-4	CW99-5-4
CAPACITY (Btu/hr.)	6000	9000

Model No.	CW99-5-3	CW132-5
CAPACITY (Btu/hr.)	9000	12000

DIMENSIONS (In.)		

<tbl_r cells="3" ix="2" maxcspan="1" maxrspan="1" used

Room Air Conditioner Models

RCA

Radio Corp. of America, Camden, N. J.

	AC-433D	AC-450S	AC-450D	AC-450 Super	AC-475S	AC-475D	AC-475 Super
Model No.	4175	5515	6050	6050	8005	9010	9010
CAPACITY (Btu/hr.)	4175	5515	6050	6050	8005	9010	9010
DIMENSIONS (In.)							
Height	13%	18%	13%	13%	15%	15%	15%
Width	22%	22%	22%	23%	26%	26%	27%
Depth	26%	26%	26%	27%	28%	28%	28%
CABINET							
Material				Steel			
Projection (in.)	10%	10%	10%	Flush	14%	14%	Flush
Window closing adapter				No			
Controls				Concealed			
Type				Pushbutton			
Thermostat				Standard			
HEATING PROVISION				Opt.			
Type				No			
AIR CAPACITIES					Yes		
Circulation (c.f.m.)	140	162	190	190	300	300	300
Fresh	35	35	50	50	50	70	
Exhaust	70	70	95	95	150	150	150
ELECTRICAL							
Voltages	115	115	115	115	—	115-208-230	
Total amperes				7.5			
COMPRESSOR							
Hp.	1/6	1/6	1/6	1/6	1/6	1/6	1/6
Cylinders	1	1	1	1	1	1	1
Make				Tecumseh			
REFRIGERANT							
Type				"Freon-12"			
FAN MOTOR							
Number	1	1	1	1	1	1	1
R.p.m.	1090	1090	1090	1075	1070	1070	1070
Hp.	1/40	1/20	1/20	1/20	1/12	1/12	1/20
AIR FILTER							
Type				Permanent Aluminum			
Dimensions (1/2 in.)	11 1/2 x 9	11 1/2 x 9	11 1/2 x 10	11 1/2 x 10	11 1/2 x 13 1/2	11 1/2 x 13 1/2	13 1/2 x 13 1/2
NET WEIGHT (lbs.)	140	145	150	150	193	198	185

RCA

(Cont.)

	AC4100S	AC4100D	AC4100S	AC4150	AC475	4100CH3	4150CH3	AC	AC
Model No.	11900	11900	16000	6050	9010	11900	15500		
CAPACITY (Btu/hr.)	11900	11900	16000	6050	9010	11900	15500		
DIMENSIONS (In.)									
Height	15 1/2	15 1/2	15 1/2	10% - 12%	10% - 12%	38 1/2	38 1/2		
Width	26 1/2	27%	27%	14 1/2 - 15%	14 1/2 x 15%	37	37		
Depth	28 1/2	31	31	44	44	20%	20%		
CABINET									
Material				Steel		Steel Sheet, Wood			
Projection (in.)	14 1/2	—	Flush	15	15	20%	20%		
Window closing adapter			No			Yes			
Controls			Concealed			Open			
Type			Pushbutton			Knobs			
Thermostat						Standard*			
HEATING PROVISION									
Type				Reverse		Yes			
						Electric			
AIR CAPACITIES									
Circulation (c.f.m.)	340	340	390	190	300	360	440		
Fresh	95	95	50	75	75	75	75		
Exhaust	165	165	180	95	150				
ELECTRICAL									
Voltages	208-230	208-230	208-230	115	115-208-230	230	230		
COMPRESSOR									
Hp.	1	1	1	1/2	1/2	1	1 1/2		
Cylinders	1	1	1	1	1	1	1		
Make				Tecumseh					
REFRIGERANT						"Freon-22"			"F-12"
FAN MOTOR									
Number	1	1	1	—	1	2-speed	2	2	
R.p.m.	1070	1070	1070	1/2	1/2				
Hp.	1/12	1/12	1/12						
AIR FILTER						Permanent Aluminum			
Type				Dimensions (1/2 in.)		11 1/2 x 13 1/2	13 1/2 x 13 1/2	13 1/2 x 13 1/2	
NET WEIGHT (lbs.)	218	190	210	172	190	338	380		

*Optional on AC-4100-S. †On AC-4100-D. ‡On AC-4100-S.

Vornado

O. A. Sutton Corp., 1812 W. Second Ave., Wichita 1, Kan.

	D50A	C75A	R75A	D75A	D100A†	D150A	D200A
Model No.	6000	7800	7800	8800	10600	17000	20600
CAPACITY (Btu/hr.)	6000	7800	7800	8800	10600	17000	20600
DIMENSIONS (In.)							
Height	13 1/2	22	15 1/2	15 1/2	15 1/2	17	17
Width	22 1/2	15 1/2	26 1/2	26 1/2	26 1/2	28 1/2	28 1/2
Depth	28 1/2	21 1/2	32	32	32	36 1/2	36 1/2
CABINET							
Projection (in.)	9 1/2	10-21 1/2	10 1/2*	10 1/2*	10 1/2*	16 1/2	16 1/2
Window closing adapter	No	Yes	Yes	Yes	Yes	No	No
Controls		Concealed	Pushbutton	Open	Pushbutton	Concealed	Concealed
Type		Knob	Knob	—	Pushbutton	Standard	Standard
Thermostat		Stand.	No	—	Yes	—	—
HEATING PROVISION							
Type					Electric	Electric	..
					Rec. cycle‡	Electric	..
AIR CAPACITIES							
Circulation (c.f.m.)	200	350	300	300	375	550	550
Fresh	90	150	100	100	150	..	..
Exhaust	125	..	150	150	175	250	250
ELECTRICAL							
Voltages	115	—	115/208/230	—	—	230/208	—
			12.0	12.6	12.0		
			6.5	6.8	6.5	7.8	9.0
			6.5	6.8	6.5	9.0	13.8
Total amperes	11.9	7.1	7.5	7.1	8.6	10.0	15.3
Unit power factor	.78	.89	.85	.87	.87	.92	.90
COMPRESSOR							
Hp.	1/6	1/6	1/6	1/6	1/2	2	4
Cylinders	1	1	1	1	2	2	4
R.p.m.	1725	1725	1725	1725	1725	1725	1725
Make					Tecumseh		
REFRIGERANT							
Type					"F-12"		
Charge (oz.)	16.2	17.8	17.4	19.1	20	26.1	34.0
FAN MOTOR							
Number	1</td						

Hunter

Hunter Fan & Ventilating Co.,
400 S. Front St., Memphis, Tenn.

Model No.	CT5054	UC5054	UC7554	UC100554
CAPACITY (Btu/hr.)	6100	6100	9100	12000
DIMENSIONS (In.)				
Height	14-14%	16%	16%	16%
Width	13-14%	26%	26%	26%
Depth	21%	29%	29%	29%
CABINET				
Material	Steel			
Projection (in.)	8	12%	12%	12%
Window closing adapter.	No	Yes	Yes	Yes
Controls	Snap switch	Open		
Type	Thermostat	Knob	Standard	
HEATING PROVISION				
AIR CAPACITIES	No	No	No	
Circulation (c.f.m.)	210	330	400	
Fresh	35	50	90	
Exhaust	35	50	90	
ELECTRICAL				
Voltages	115	115	115/208/230	208/230
Total average watts	1000	1000	1250	1450
Total amperes	11.8	11.5	..	..
COMPRESSOR				
Hp.	1/2	1/2	2/3	1
Cylinders	1	2	2	2
Make	Tecumseh			
REFRIGERANT				
Type	"F-12"	"F-22"		
Charge (oz.)	18	24	28	26
FAN MOTOR				
Number	2	1	1	1
R.p.m.	1550		1060/800	
Hp.		1/15	1/15	1/15
COIL				
Condenser (rows)	3	2	3	3
Evaporator (rows)	2	1	2	2
AIR FILTER				
Type	Aluminum			
Dimensions (1/2 in.)	..	11 1/2 x 19 1/2		
NET WEIGHT (lbs.)	105	175	185	190
SPECIAL FEATURES				
Model CT5054, casement window type. Other models, Roto-Disc Director.				

Northern-Aire

Great Northern Mfg. Corp., 1056 N. Wood St., Chicago 22, Ill.

Model No.	NA500	NA750	NA1000	NA1500
CAPACITY (Btu/hr.)	6500	8500	10800	17900
DIMENSIONS (In.)				
Height	15 1/2	15 1/2	15 1/2	15 1/2
Width	22 1/2	22 1/2	22 1/2	26 1/2
Depth	29	29	29	29
CABINET				
Material	Steel and plastic			
Projection (in.)	Min. 6 1/2 - Max. 13 1/2			
Window closing adapter.	Yes			
Controls	Open			
Type	Pushbutton			
Thermostat	Standard			
HEATING PROVISION				
Type	Yes			
AIR CAPACITIES	Electric			
Circulation (c.f.m.)	325-375			
Fresh	100-125			
Exhaust	225			
ELECTRICAL				
Total average watts	1350			
Total amperes	9.0-10.6			
COMPRESSOR				
Hp.	1/2	1/2	1	1 1/2
Make	Tecumseh			
REFRIGERANT				
Type	"F-12" or "F-22"			
COIL				
Condenser (rows)	5	5	5	5
Evaporator (rows)	5	5	5	5
AIR FILTER				
Type	Fiberglass			
NET WEIGHT (lbs.)	170-190			
SPECIAL FEATURES				
U.L. approved				

Sub-Zero

Model No.	SZ50-15	SZ34-15 or 30	SZ100-30
CAPACITY (Btu/hr.)	5800	8500	11775
DIMENSIONS (In.)			
Height	14 1/2	14 1/2	14 1/2
Width	26 1/2	26 1/2	26 1/2
Depth	27 1/2	27 1/2	27 1/2
CABINET			
Material	Steel		
Projection (in.)	9	9	9
Window closing adapter.	Yes		
Controls	Concealed		
Type	Pushbutton		
HEATING PROVISION			
Type	No		
AIR CAPACITIES			
Circulation (c.f.m.)	225	320	325
Fresh	225	260	325
Exhaust	225	260	325
ELECTRICAL			
Voltages	115	115/230	230
COMPRESSOR			
Hp.	1/2	1/2	1
Cylinders	1	1	2
R.p.m.	1725	1725	1725
Make	Tecumseh		
REFRIGERANT			
Type	"F-12"	"F-22"	
Charge (oz.)	13	19	23
FAN MOTOR			
Number	1	1	1
R.p.m.	1050	1060	1050
Hp.	1/15	1/15	1/10
COIL			
Condenser (rows)	1	2	3
Evaporator (rows)	1	2	3
AIR FILTER			
Type	Permanent		
Dimensions (1/2 in.)	9x16x1 1/2		
NET WEIGHT (lbs.)	171	187	194

Olympic Fountain Aire

Model No.	OW475S	OW475D	OW4100D
DIMENSIONS (In.)			
Height	16 1/2	16 1/2	16 1/2
Width	26 1/2	26 1/2	26 1/2
Depth	30	30	30
CABINET			
Projection (in.)	13 1/2	13 1/2	13 1/2
Controls	Concealed		
ELECTRICAL			
Voltages	115	115/230	208/230
COMPRESSOR			
Hp.	1/2	1/2	1

Frigidaire

Frigidaire Div., General Motors Corp.,
300 Taylor St., Dayton, Ohio

Model No.	ARV33	ARV50	ARDV75	ARDV100
DIMENSIONS (In.)				
Height (Front)	13 1/2	13 1/2	13 1/2	13 1/2
Height (Back)	10 1/2	10 1/2	10 1/2	10 1/2
Width	14 1/2	14 1/2	26	26
Depth	38 1/2	38 1/2	36 1/2	36 1/2
CABINET				
Material	Plastic and steel	5 1/2	5 1/2	5 1/2
Projection (in.)	5 1/2	5 1/2	5 1/2	5 1/2
Window closing adapter	No	Concealed	Knob	Optional
Controls	Type Thermostat	No	No	No
Type	Thermostat	Standard	Optional	—
HEATING PROVISION				
AIR CAPACITIES	No			

Room Air Conditioner Models

Chrysler Airtemp

Airtemp Div., Chrysler Corp., 1600 Webster St., Dayton, Ohio

Model No.	1650-2	1675-2*	1600-2	1675-3	1600-3	1750	1775-1
DIMENSIONS (In.)							
Height	15	15	15	15	15	36 $\frac{1}{4}$	36 $\frac{1}{4}$
Width	27 $\frac{1}{2}$	27 $\frac{1}{2}$	27 $\frac{1}{2}$	27 $\frac{1}{2}$	27 $\frac{1}{2}$	16 $\frac{1}{2}$	16 $\frac{1}{2}$
Depth	32 $\frac{1}{2}$	32 $\frac{1}{2}$	32 $\frac{1}{2}$	32 $\frac{1}{2}$	32 $\frac{1}{2}$	12 $\frac{1}{2}$	12 $\frac{1}{2}$
CABINET							
Material				Steel			
Projection (in.)	15	15	15	15	15	12 $\frac{1}{2}$	12 $\frac{1}{2}$
Window closing adapter							
Controls		Concealed		No	Semi-concealed		Concealed
Type						Dial	
Thermostat		-Optional-	Wheel		Standard		
HEATING PROVISION							
Type	No	No	No	Yes	Yes	No	No
				Reverse cycle			
AIR CAPACITIES							
Circulation (c.f.m.)	210	300	375	300	375	175	220
Fresh	70	100	135	100	135	79	86
Exhaust	110	140	165	140	165	156	165
ELECTRICAL							
Voltages	115	115-230	208-230	115-230	230	115	115-230
Total average watts	920	1160	1320	1160	1320	960	1140
Total amperes	11.2	13.8-7.1	8.2-7.4	13.8-7.1	7.4	11.3	11.9-5.6
COMPRESSOR							
Hp.	1/2	3/4	1	3/4	1	1/2	3/4
Cylinders	2	2	2	2	2	1	1
R.p.m.	1750	1750	1750	1750	1750	1750	Tecumseh
Make							
REFRIGERANT							
Type	-"F-12"-	"F-22"	"F-12"	"F-22"	"F-12"	"F-22"	
Charge (oz.)	19.3	24.8	26.4	24.8	26.4	19.2	17.6
FAN MOTOR							
Number	2	2	2	2	2	2	2
R.p.m. (Condenser)	1100	1070	1080	1070	1080	1550	1550
(Evaporator)	1575	1590	1490	1590	1490	1550	1550
Hp. (Condenser)	1/30	1/30	1/20	1/30	1/20	1/40	1/40
(Evaporator)	1/80	1/50	1/35	1/50	1/35	1/80	1/80
COIL							
Condenser (rows)	2	3	4	3	4	3	3
Evaporator (rows)	1	1	1	1	1	1	1
AIR FILTER							
Type			Throwaway				
Dimensions			12 $\frac{1}{2}$ x24 $\frac{1}{2}$ x1				8 $\frac{1}{2}$ x11 $\frac{1}{2}$ x $\frac{1}{2}$
NET WEIGHT (lbs.)	163	181	193	181	193	131	140

*Also available as model 1675-4 with single cylinder "Freon-22" compressor.

International Harvester

International Harvester Co., 180 N. Michigan Ave., Chicago 1, Ill.							
Model No.	A350D	A500D	A750D*	A1000D	A850C	A851	A1100
CAPACITY (Btu/hr.)							
400	5500	8500	10600	8500	8500	10600	
DIMENSIONS (In.)							
Height	12 $\frac{1}{2}$	15 $\frac{1}{4}$	15 $\frac{1}{4}$	15 $\frac{1}{4}$	15 $\frac{1}{4}$	15 $\frac{1}{4}$	15 $\frac{1}{4}$
Width	22 $\frac{1}{2}$	26 $\frac{1}{2}$	26 $\frac{1}{2}$	26 $\frac{1}{2}$	26 $\frac{1}{2}$	26 $\frac{1}{2}$	26 $\frac{1}{2}$
Depth	26	31 $\frac{1}{2}$	31 $\frac{1}{2}$	31 $\frac{1}{2}$	31 $\frac{1}{2}$	31 $\frac{1}{2}$	31 $\frac{1}{2}$
CABINET							
Material			Steel and plastic				
Projection (in.)	12 $\frac{1}{2}$	14 $\frac{1}{2}$	14 $\frac{1}{2}$	14 $\frac{1}{2}$	14 $\frac{1}{2}$	14 $\frac{1}{2}$	14 $\frac{1}{2}$
Window closing adapter			No	Open	Knob	Standard	
Controls							
Type							
Thermostat							
HEATING PROVISION							
Type	No	No	No	No	Yes	Yes	Yes
	..	..	..	..	Rev. cycle		
AIR CAPACITIES							
Circulation (c.f.m.)	140	240	270	300	270	270	300
Fresh	35	110	110	130	110	110	130
Exhaust	30	125	130	140	130	130	140
ELECTRICAL							
Voltages	115	115	115	230	115	230	230
Total average watts	620	920	1190	1430	1190	1280	1430
Total amperes	8.6	11.8	13.2	8.0	18.2	7.6	8.0
COMPRESSOR							
Hp.	1/2	3/4	3/4	1	3/4	3/4	1
Cylinders	1	1	1	2	1	1	2
Make							
REFRIGERANT							
Type	-"F-12"-		"F-22"		"F-22"		
Charge (oz.)	17	14.5	44.8	52.1	44.8	44.8	52.1
FAN MOTOR							
Number	1	1	1	1	1	1	1
R.p.m.	1050	1050	1050	1070	1050	1050	1070
Hp.	1/40	1/15	1/15	1/9	1/15	1/15	1/9
AIR FILTER							
Type	Glass fiber						
Dimensions (1/2 in.)	14 $\frac{1}{2}$ x10 $\frac{1}{2}$						20x12
NET WEIGHT (lbs.)	120	163	187	198			
SPECIAL FEATURES							
Decorators — all models							

*Also available as 230 volt model A-751-D.

Coldspot

Sears Roebuck & Co., 925 S. Homan Ave., Chicago, Ill.							
CAPACITY (Btu/hr.)	57513	57512	57534	56334	56210	56215	